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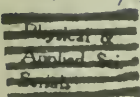
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List of Principal Headings in the following Index, with pages on which they may be found.

[illegible]

<p>Randfontein Penwith Extension and Exploration Syndicate, 225</p> <p>Rhodesia Asbestos Co., 715</p> <p>Rhodesia Railway Trust, 661</p> <p>Rhodesian Small Workers and Tributors Association, 381</p> <p>Rhodesian and South African Syndicate, 190</p> <p>Rietfontein Proprietary Mines, 147</p> <p>Rietfontein (T.C.L.), Ltd., 135</p> <p>Romola Nigel, 428</p> <p>Rooodepoort Mines, 74</p> <p>Rooiberg Minerals Development, Co., 81, 303</p> <p>Rose of Sharon and Shamrock, 653</p> <p>Royal Society of S.A., 112</p>	<p>Factor of Safety in Mine Electrical Installations (Clark), 459, 489, 534</p> <p>Financing of Irrigation Schemes, The (Union Director of Irrigation), 214</p>	<p>Geological Conundrum, A. 89</p> <p>Geological Truth Tablets, 49, 90, 158, 249, 379, 532, 587, 682, 748</p>	<p>Ferreira Deep, 82</p>
<p>Saklanha Bay Harbour and Railway Co., 628</p> <p>Scottish Mashonaland G.M. Co., 382</p> <p>Selukwe Columbia G.M., 653</p> <p>Selukwe G.M. Co., 115</p> <p>Sheba Gold Mine, 302</p> <p>Simmer and Jack, 46, 149</p> <p>South African Railways, 371</p> <p>South African Gold Trust, 718, 774</p> <p>Springs Mines, 542</p> <p>Standard Bank of S.A., 253, 846</p> <p>Sub Nigel, 42, 147</p> <p>Susanna Mines, 61</p> <p>Sutherland Gold Mines, 306</p> <p>Swaziland Corporation, 576</p> <p>Swaziland Tin, 11, 134</p>	<p>Geology of the Victoria Tin Field (Maufe), 53, 86, 116</p> <p>Geological Notes on Claims Pegged for Aluminium near Selukwe (Zeally), 30</p> <p>Geological Notes on a Traverse from Gwelo to Bulawayo (Zosley), 191, 220</p> <p>Gold-Silver Ore Treatment in 1912 (James), 772</p>	<p>Illogical Precision in Mine Reports 351</p> <p>Industry and the Labour Question The, 379</p> <p>Inspector of Mines, 119</p> <p>Investor's Query. An, 414</p>	<p>Giant Mines, 151</p> <p>Globe and Phoenix, 165</p>
<p>Thistle Etna Gold Mines, 151</p> <p>Transvaal Coal Trust, 541</p> <p>Transvaal and Delagoa Bay Collieries, 550</p> <p>Transvaal and Delagoa Bay Investment Co., 507</p> <p>Transvaal G.M. Estates, 133</p> <p>Transvaal Lands, 526</p> <p>Treasury Gold Mine, 10, 31</p>	<p>Industrial Possibilities of British East Africa (Resident), 647</p>	<p>Labour and Diamonds, 810</p>	<p>Kleinfontein Estates, 160</p>
<p>Union Forest Department, 692</p> <p>United Rhodesia Goldfields, 393, 451</p>	<p>Mining Requirements and Local Industries (Correspondence), 445</p> <p>Modern American Milling Practice (Brooks), 770</p>	<p>Method for Determining Correct Gold Contents, 655</p> <p>Mine Ambulance Competition, 719, 748</p> <p>Mine Managers' Examinations, 49</p> <p>Miners and Mine Inspectors, 777</p> <p>Mining Investments for Small Men, 414</p> <p>Municipal Gas Engines, The, 488</p>	<p>Natal Bank, 693</p>
<p>Van Ryn G.M. Co., 47, 499, 578</p> <p>Vereniging Estates, 600</p> <p>Village Deep Gold Mine, 182, 831</p>	<p>Part of Electricity in the Progress of South Africa, The (Roberts), 460</p> <p>Pilgrims Rest District, Progress of the (Correspondence), 824</p>	<p>National Diamonds, 621</p> <p>Nissen Stamp, The, 682, 832</p>	<p>Premier Diamonds, 181</p>
<p>Wankie Colliery Co., 482, 555</p> <p>Welgedacht Exploration Co., 393, 540</p> <p>Witbank Colliery, 305, 730</p> <p>Witwatersrand Deep, 6</p> <p>Wolluter Gold Mines, 645</p>	<p>Sand Filling on the Rand (Sawyer) 271</p> <p>Short Round Drilling (Muir), 213</p> <p>Specification of Theodolites for Mines (Cooke), 754</p>	<p>Penwith West Rand Unified, 119</p> <p>Phthisis Compensation and Men's Contributions, 832</p> <p>Phthisis Victims, Employment for, 621</p> <p>Premier Diamond Co. Criticised, The, 719</p>	<p>Randfontein Estates, 574</p> <p>Rezende Mines, 683</p> <p>Rooiberg Minerals Development Co., 303</p>
<p>Zaaipplaats Tin Mining Co., 273</p> <p>Zambesia Exploring Co., 834</p>	<p>Trackless Electric Transport for South Africa (Thomas), 223, 251</p>	<p>Rand Mining, A Criticism on, 777, 810, 832</p> <p>Rhodesia—a Condemnation, 621</p> <p>Rhodesian Mining To-day, 682</p> <p>Ridge Furnace, The, 621</p> <p>Roberts Victor Diamonds, 49</p>	<p>South African and General Investment Co., 165</p> <p>South African Real Estate Trust, 165</p> <p>Sheba G.M. Co., 241, 757</p>
CONTRIBUTED ARTICLES.			
<p>Braking of High Speed Winding Engines, The (Chambers), 216, 245, 285, 319</p>	CORRESPONDENCE AND DISCUSSION.		
<p>Continuous Decantation vs. Filtration (Brooks), 807</p>	<p>Abbreviations, 488</p> <p>Abercorn Banket, 414</p> <p>Andreans, Old, 158</p>	<p>Sandycroft Ltd., 21</p> <p>Shortcomings of De Beers, The, 283</p> <p>South African Oil Ventures, 587</p> <p>Steam versus Electric Hoists, 119</p>	<p>Transvaal Gold Mining Estates, 102</p> <p>Tube Mills Patents Consolidated, Ltd., 91</p> <p>Twefontein Colliery, 307</p>
<p>Earthed vs. Unearthed Neutrals on Alternating Current Systems (Peck), 591, 625</p> <p>Electrical Distribution for Mines (Anson), 689</p> <p>Electrically Driven Winding Engines (Brown), 353, 384</p>	<p>Brakpan Deeps, 281</p>	<p>Tariff Question, The, 89</p>	<p>Van Ryn Gold Mines, 456</p>
	<p>Cape Tin Deposits, 119</p> <p>Colonial Coke, 377</p> <p>Consolidated Main Reefs and Main Reef Vests, 377</p> <p>Criticism from Kimberley, 282</p> <p>Cullen, Mr., and Underground Men, 158</p>	<p>Valley Diamonds, 621</p> <p>Village Deeps, 532</p>	<p>Wit Township, 212</p>
	<p>De Beers Defended, 283, 537</p> <p>Diamond Cutting Industry for South Africa, 281, 313, 351</p> <p>Dust Problem, The, 187</p>	<p>West Rand Unified, 249</p> <p>Witwatersrand Native Labour Association, 655</p> <p>Zaaipplaats and the Critics, 379</p>	<p>GENERAL INDEX.</p>
	<p>Engineers and the Law of Libel, 188</p>	<p>Dividends.</p>	<p>Adair Usher Process, 655</p> <p>African Farms, 28</p> <p>Ambulance Work, 478</p> <p>Antelope G.M., 415</p> <p>Apprentices in Mines, 484</p> <p>Asp G.M. Co., 663</p> <p>Australian Diamonds, 246</p>
	<p>Future of the Rand, The, 188</p>	<p>East Rand Gold, Coal and Estate Co., 533</p> <p>Eland Diamonds, 91</p>	<p>Base Metal Quotations, 312</p> <p>Bell Reef Development Co., 415</p> <p>Bellevue Tins, Ltd., 167</p> <p>Books Reviewed—</p> <p>Concentrating Ores by Floatation, 706</p> <p>Land and Mine Surveying, 778</p> <p>Modern Mine Valuation, 693</p> <p>Text Book of Rand Metallurgical Progress, 50</p> <p>British Coal Strike and its Local Influence, The, 87</p> <p>Bucks Reef, 452, 493</p>
			<p>Cam and Motor Mines, 52, 248, 381, 452</p> <p>Cape Asbestos, 82</p> <p>Chishawasha Tin Fields, 85</p> <p>Congo Diamonds, 127</p> <p>Consolidated Main Reef, 82</p> <p>Consolidated Oil Fields of South Africa, 188</p> <p>Consular Trade Reports, 786</p> <p>Coronation Syndicate, The, 163</p>
			<p>Daisy Mine, 236</p> <p>Deepest Borehole in the World, 830</p> <p>De Kaap's Gold Ventures, 104</p> <p>Devils Peak, 157</p> <p>Diamonds in Canada, 336</p> <p>Diamonds on Government Guano Islands, 727</p> <p>Diamonds at Villieria, 147</p> <p>Diamond Market, The, 387</p> <p>Dressing of Tin Ores, The, 616</p> <p>Drilling Contests in the U.S.A., 276</p> <p>Droogeveld Diggings, 441</p>

East Gwanda Group of Mines, 834
Eastleigh Diggings, 576, 637
East Rand Exploration, 6
Eldorado G.M. Co., 715
Empress Palmira G.M., 382

Falcon Mines, Ltd., 381

Gaika G.M. Co., 381, 415
Gatooma District, 51
Geduld Proprietary, 838
German East Africa Syndicate, Ltd., 267, 342
Giant Mines, 775
Globe and Phoenix, 750, 776
Government Gold Mining Areas, 731

Hop Growing, 594

Iron Ore on Pretoria Town Lands, 44

Jupiter G.M. Co., 382

Kamfersdam Diamonds, 637
King Edward VII. Memorial Fund, 221
Klipfontein Estates, Ltd., 141
Koffyfontein Mines, 218
Komati Mine, 370
Kunst Diamond Syndicate, 658

Lonely Reef G.M., 311, 350, 451

Machavio Claims, 245
Madagascar Graphite, 126
Madagascar Oil Fields, 312
Mail Contract Clauses, 160
Manufacture of Explosives, 785
Marketing Wool, 594
Matabele Queen's Co., 85
Milling on Sundays, 264
Mine Employees and the Defence Act, 494
Miners' Electric Safety Lamps, 276
Misrepresenting Durban, 93
Modder Deep Levels, 149, 244
Monte Carlo Claims, 493
Moodies G.M. Co., 113
Morven Mine, Sale of the, 834
Motor Mine, 494

Natal Mining Litigation, 158
Natal Sugar Industry, 661
Nationalization of Mines, 274
New Beluam (Transvaal) Land and Dev'n. Co., 638
New Durban Coal Appliances, 505
New Found Out Mines, 619
New Kleinfontein Co., 524
New Modderfontein, 273
New Rand, Ltd., 176
New Unified Reefs (Sheba), 745
Northern Star G.M., 415
Northern Transvaal Copper Fields, 200
Nyasa Coal, 380
Nyasa Company's Outlook, The, 564

Piggs Peak, 8, 40
Planet-Arcurus, G.M. Co., 349, 445
Prices of Rand Shares, 491
Prince Albert Gold Fields in Liquidation, 101
Proclaimed Areas, 336
Prospecting in N.E. Rhodesia, 416
Purification of Mine Air, The, 468

Railway Rates, 693
Randfontein-Penwith Extension, 165
Redrup's Kop Mine, 116
Rhodesia Broken Hill, 683
Rietfontein Diamond Syndicate, 784
Roodeplaat Diamond Mining Co., 244
Roodeplaat G.M. Co., 804
Russell Mine Abandoned, 408

Sakalava-Madagascar Prop. Oil Fields, 645
Schaijplaats Diamonds, 234
Selukwe Columbia, 685
Shagari Mines, Ltd., 219
Shamva Mine, 350, 749
Shipping Agreement Terms, 628
Silver, Lead and Tin Mining in German S.W. Africa, 47
Skilled Labour Instruction, 619
Small Man and Capital, The, 18
Sources of Energy available for Power, 660
Susanna Mine, 151, 275, 350

Table Mountain Minerals, 215
Tati Concessions, 17
Toronto Mine, 350, 451
"T.C.L." Rewards for Prospectors, 211
Transvaal and Rhodesian Estates, Ltd., 648

Uganda Railway, 225
Union Steel, 660

Vaal River Gold Fields, 411
Viking Gold Mines, 247
Vlakfontein Gold Mines, 401

Wireless Telephony Underground, 372
Worcester Exploration, 80

ILLUSTRATIONS.

Alluvial Workings, Barberton District, 337

Breyten Collieries, 265

Consolidated Langlaagte, View of, 41
Consolidated Langlaagte Surface Plant, 517
Cow Catcher, New Motor, 392

Electric Hoists at S. Rand Shaft of Crown Mines, 383

Globe and Phoenix Plant, 155

Industries of British East Africa, 647

Knights Deep, Views of, 399

Messina Mine, Views of, 743
Modder "R." View of, 483
Modern Conveyance - Shaking Chutes and Motors, 839

Nissen Stamp, The, 384

Rand Technical Institute, The, 403
Rhodesian Mining Scene, A Typical, 117
Robinson Deep Fan, 267

Sand Filling Appliance at Simmer and Jack, 579
Steel Works at Vereeniging, Site of, 147

Van Ryn Deep Mill Foundations, 303, 638
Van Ryn Deep Equipment, Views of, 799
Vereeniging Steel Works, Views of, 829

GROUPS.

Manager and Staff, City Deep, 739
Manager and Staff, City and Suburban, 639
Manager and Staff, Ferreira Deep, 709
Manager and Staff Jumpers Gold Mine, 825
Manager and Staff, Meyer and Charlton Gold Mine, 677
Manager and Staff, New Heriot Gold Mine, 769
Manager and Staff, Nourse Mines, 577
Manager and Staff, Robinson Mine, 519
Manager and Staff, Robinson Deep, 803
Manager and Staff, Simmer and Jack Mine, 481

MAPS AND PLANS.

Brakpan No. 16 and Schapevoust No. 13, Government Flotation, 235

Diagram of Relative Ore Grades of Witwatersrand, 237

Geological Sketch Map of the Central Bushveld, 608
Geological Map of Cornwall, 520
Geological Sketch Map of Eastern and S. Eastern Transvaal, 674
Geological Structure across Zambplats, Diagram, 476
Geology of Western W.W. Rand, Sketch Map, 827
German East Africa Gold Occurrences, Map, 405
Government Areas, Sketch Map of, 737

Issued Capital and Rates of Dividend, Diagram, 439

Modder Deep Levels, Shafts and Crosscuts, 173, 174

New Modderfontein Gold Mine Workings, 335
New Reduction Plant, Van Ryn Deep, 76

Photolysse Plant, 45
Potgietersrust Tin Field, Map of, 47

Relation between Working Costs and Stamp Capacity, Diagram, 338

Van Ryn Gold Mines, Plan of, 643

LEADING ARTICLES.

Annual Report of the Government Mining Engineer, 71
Apprentices in Mines, 512

Campaign against Accidents, The, 546

Chamber of Mines Annual Meeting, 821
Chemical, Metallurgical and Mining Society Dinner, The, 398
Commercial and Industrial Parliament, A, 36
Conciliation Board for Mines, 35
Crown Mines Experiments, 1
Cyferfontein Fiasco, The, 101

Deep Hoisting Problems and Men who solved them, 140

Deep Mining, 171
Deferred Pay Question, The, 635
Denudation of S. Africa, The, 671
Diamond Cutting Industry, A, 736
Diamond Developments, Important, 35
Diamond Trade in 1912, The, 672
Dividends per Ton, 609

Electricity and the Human Factor, 347

Failure of the Conciliation Board, 405
First Aid on Rand Mines, 108, 298
Fiscal Questions, 139
Four Rand Mine Meetings, 261

Gold Fields Reports, The, 438
Government and the Mining Industry, The, 361

Homes for Miners, 331
How to Attract Capital, 3

Important Diamond Question - Some, 764

Johannesburg Consolidated Investment Co., Year with the, 232

Labour Outlook, The, 571
Land for Miners, 36
Lord Harris on Rand Questions, 362

Mine Manager's Examinations, 4
Miner's Contract, The, 705
Mining Industry in Parliament, The, 763
Mining Taxation Act, The, 512
Municipal Gas Engines, The, 437

Native Labour Position, The, 71, 201

Native Living Conditions on the Rand, 171
New Modderfontein Year, The, 299
Northern Transvaal Prospects, 400

Outlook, The, 545
Outlook for Diamonds, The, 233, 511

Position of the Randfontein Central, 672
Progress in Sand Filling, 172
Progress of Swaziland, 172

Railway Rates again, 474
Rand Mine Managerial Problems, 822
Rand Mines and Labour Methods, 97
Rand Output for 1912, The, 605
Rand Pioneers and the Industry, 438
Recent Progress on some leading Rand Mines, 796
Roosberg and the Critics, 262

Selati Railway, 332
Selective Mining vs. "Gold Fields" Practice, 471
Shortcomings of De Beers, The, 232
Some Important Company Meetings, 706
Stamping Out Phthisis, 474

Tariff and the Cost of Living, The, 736
Tin Experts, 471

Union Currency Questions, 72
Union Import and Export Returns for 1912, 735

White Labour and Immigration, 795

Year with the Premier, The, 636
Year in Rhodesia, The, 572

Zenith of Gold Output, The, 204

MONTHLY REPORTS.

Albu Group, 29, 185, 315, 462, 498, 617, 751
Anglo-German Tins, 19
Aurora West, 747

Barnato Group, 29, 187, 315, 498, 617, 751
Blauwbusch Diamonds, 272, 411, 738
Brakpan Mines, 41, 187, 308, 445, 494, 614, 759, 792
Bucks Reef, 85, 206, 535
Bushman Mine, 619
Bustick Mine, 85, 206, 247, 382, 492

Cuba and Motor Mine, 319, 531, 775, 809
Centipede Mine, 556
Ceylon-Lydenburg, 29, 200, 309, 458, 614, 751

City and Suburban, 6, 309, 450, 611, 768
Companhia da Mocambique, 148, 272, 419, 614, 720, 824
Consolidated Gold Fields Group, 56, 187, 316, 497, 617, 751

Diamond Fields, 556

East Rand Proprietary Mines, 141, 317, 450, 506, 611, 738
Eldorado Mine, 532

Giant Mines, 584
Globe and Phoenix, 17, 189, 275, 451
Glynn's Lydenburg, 29, 42, 200, 313, 455, 508, 610, 747
Goerz Group, 57, 185, 316, 497, 618, 780

Hartley District, 451

Jumperscum-Treasury, 49, 60, 181, 348, 484, 614, 774

Kleinfontein Group, 10, 618, 792
Kohmanoskop Diamonds, 38, 191, 317, 448, 610, 753

London and Rhodesian Mining and Land Co., 775
Lonely Reef G.M., 85, 383, 404, 531
Luipaardsvlei Estate, 306, 681, 759

Matalade Queens, 319, 775
Messina Copper, 307, 414, 808
Messina Development Co., 517

Neumann Group, 56, 187, 316, 497, 617, 781
New Eland Diamonds, 316, 448
New Heriot G.M., 309, 464
New Kleinfontein, 317, 448, 727, 738
New Thor Diamonds, 781
New Vaal River Diamonds, 20
Nigel G.M. Co., 300, 182, 766
North Charterland Exploration Co., 834

Pickstone Gold Mines, 151
Piggs Peak, 41, 188, 340, 611
Premier Diamonds, 317

Rand Klip, 309, 445, 506, 614
Rand Mines Group, 29, 185, 315, 497, 751
Rezende Mine, 350, 776, 809
Rhodesia Chamber of Mines, 189, 276, 452, 619
Rhodesia Small Workers and Tributaries Association, 531
Rhodesia Central G.M. Co., 776
Roberts Victor Diamonds, 10, 163, 327, 618, 752
Robinson Group, 181, 348, 498, 632, 792
Roosberg Minerals, 42, 181, 300, 482, 613
Roosburg Gold Mine, 200, 313

Sheba G.M., 21, 200, 313, 482, 612, 784
Simmer Deep, 372
Small Workers and Tributaries Association, 85, 247
Southern Rhodesia Mines, 17
South West Diamond Fields, 144, 268
South West Transvaal Diamond Diggings, 413
Susanna Mine, 556, 684, 715
Transvaal Chamber of Mines, 84, 218, 373

Transvaal Gold Mining Estates, 29, 37, 166, 300, 455, 508, 610, 738

Wanderer G.M., 493
Worcester G.M., 778
Worcester Exploration, 41, 236, 370

Zaaiplaats Tin, 48, 486, 787

QUARTERLY REPORTS.

Albu Group, 371
Antelope G.M. Co., 217
Apex Mines, 366, 760

Boutjes Consolidated Mines, 808
Barnato Group, 243
Brakpan Mines, 217, 697, 760
Bucks Reef G.M., 51, 619

Central Mining and Investment Corporation, 9
Cinderella Consolidated, 697
City Deep, 367, 817
City and Suburban, 249, 760
Consolidated Gold Fields Group, 279
Consolidated Main Reef, 792
Crown Mines, 367

Durban Roodepoort, 368, 830

East Rand Proprietary Mines, 364
Eldorado Banket, 145, 581

Galka G.M. Co., 314
Gould G.M., 280
Geldenhuis Deep, 65
General Mining and Finance Corporation, 239
Glynn's Lydenburg, 222
Goerz Group, 288, 760
Government Mining Areas (Modderfontein), 272

Harmony Proprietary, 710

Jumbo G.M. Co., 151
Jumpers G.M. Co., 810

Knights Central, 393, 811
Knights Deep, 6, 468

Lonely Reef Mine, 17, 115, 581
Luipaardsvlei Estates, 506

Main Reef West, 374, 808
Meyer and Charlton, 697
Modderfontein "B" 29.

Neumann Group, 348
New Goch, 697
New Heriot Gold Mine, 238, 760
New Modderfontein, 12
Nourse Mines, 80, 539

Planet-Arcturus Gold Mines, 382, 775
Premier Diamonds, 315

Rand Collieries, 697
Rand Mines Subsidiaries, 588
Rezende Mines, 555
Robinson Gold Mine, 18
Roodepoort United, 697
Roosberg Minerals Development Co., 714

Shonva Mines, 584
Sinti Reefs, 683
Springs Mines, 760

Van Ryn Deep, 309, 385
Van Ryn Gold Mines, 697
Village Main Reef, 28

West Rand Consolidated, 697
Witwatersrand Deep, 792
Wolhuter Gold Mines, 526

SPECIAL ARTICLES.

Accidents in S. African Mines, 193
Activity at Barberton 40
Advance of Mining in Manicaland, 205
African Farms Tin Interests, 372
Africa's most fully developed Mines, 104
Ambulance Challenge Stichting Competition, 209
Anniversary Number, Our, 145
Another State Mines Scheme, 823
Anti-Maharial Association, 8
Applications of Producer Gas, 457
Apprentices and the Mines, 551

Braking of High Speed Hoists, 343
Brakpan Government Lease Scheme Recalled, 16, 205, 206
Bushman Mines, Expansion at, 798
Breyten Collieries, 263
Bushveld Igneous Complex, 216

Central Bushveld Area, The, 607
Chartered Company's Report, The, 804
Chief Gold Producers of the Rand, 767
Chief Productive Areas of the Rand, 177
Circular Shift at the New Modderfontein, The, 300
City Deep to pay a Dividend this year, 141
Coal Resources of S. Africa, The, 744
Coming Mining Exhibition, The, 516
Consulting Engineers—Real and Unreal, 206
Copper Prospects in Africa, 310
Corner House Mines in 1912, 609
Cost of Tin Production, The, 103

De Beers-Voorspoed Agreement, The, 42
Deep Ore Bodies, 613
Diamond Diggings, The, 105
Dissolved Acetylene, 43
Dividends for 1912, 549, 575

East Rand Trust, Ltd., The, 212
Eastern and N. Eastern Transvaal, The, 673
Electric Hoist with Automatic Control, An, 563
Electrical Factor of Safety, 224
Engines, Boilers and Machinery in the Union, 92
Engineering in 1912, 612
Enlarged Knights Deep, The, 175

Facts about Chromite, 316
Four Corner House Mines, 367
Further East Rand, The, 39, 737
Future of Slime Treatment, The, 768

General Mining Corporation in Rhodesia, The, 450
Geology of the Western Rand, The, 826
German S.W. Africa Diamond Fields, The, 14
Gold Fields Rhodesian Interests, The, 449, 525
Golden Valley and Shagari Gold Fields, The, 117
Grade of Rand Ore, The, 237
Graphite in Madagascar and Africa, 554

How the Mines Swell the Revenue, 149

Improving Underground Ventilation, 267
Industry in 1912, The, 513
Incidence of the Profit Tax, The, 112
Is the Stamp Mill Doomed? 107

Katanga, The Mining Industry of, 179
Knights Deep—Simmer and Jack East Absorption, 101

Leopold Tin Mines, 800
Lives of the W.W. Rand Mines, 79

Machinery on Base Metal Mines, 116

Mammoth State Flotation, Another, 235
Mechanical Engineering on the S.A.I., 335

Messina (Transvaal) Development Co., 527
Mine Ambulance Work, 314
Mine Subsidiaries on the Rand, 113
Mine Taxation in the Transvaal, 334, 369, 411, 440
Mines Department and the White Labour Question, 446
Mines of Ancient Manicaland, The, 578
Mineral Output, The, 1912, 153
Mineral Output of the Union, The, 118
Mineral Possibilities of German East Africa, 405
Mineral Possibilities of the Murchison Range, 358

Miners' Contract Report, The, 713
Miners' Pathetic Committee's Report, 112, 148
Miners Pathetic Victims and the Land, 52
Mining Instruction in Elementary Schools, 307
Mining Progress in the Klerksdorp District, 644
Mining Progress in Manicaland, 447
Mining Rights in Natal, 455
Modder "B" Results, 483
Modder Deep Levels, 173
Modern Conveyance: Shaking Chutes and Motors, 839
Modern Earth Working Machinery, 91

National Diamonds, 553
Native Labour Outlook, The, 249
Nels Rust Industrial Enterprise on the Rand, 723
New Cement Undertaking, The, 441
New Diamond Prospects, 269
New Mills for S. African Gold Mines, 5
New Modderfontein, 335
New Modderfontein Reports, The, 308
New Precipitation Method, 676

Oil in South Africa, 13
Oil Prospecting in Cape Colony, 404
Origin and Accumulation of Oil, 589, 615, 679
Outlook for the Timber Market, The, 490
Outside Mines of the Transvaal, 7

Persistence of Rand Ore in Depth, 176, 208
Petroleum in Madagascar, 141
Petroleum in South Africa, 707
Photolysac, 45
Pilgrimsberg Volcano, The, 773
Pilgrim's Rest and Barberton Goldfields, 680
Place of Electricity on the Rand, The, 650
Position at the Consolidated Langlaate, 517
Position at the Roodberg Mine, 805
Position of the Cape Copper Companies, The, 212
Position of the Knight Central, 576
Present Position in Katanga, The, 83
Present Position at Randfontein, 610
Prevention of Accidents in Mines, The, 650
Progress at Messina Copper Mines, 743
Progress at Avercruising Steel Works, 829
Progress at West Rand Consolidated, 234
Progress in Ore Dressing, 805
Progress of Construction at the Van Ryn Deep, 638
Progress of the Goerz Group, 366
Progress of Manicaland Mining, 178
Progress of Rand Mining, 740
Progress of Sand Filling, 548
Progress of the Tin Industry, 649
Progress of the "T.C.L.", Recent, 743
Proposed Natal Native Labour Association, 78
Prospects of Increased Dividends This Year, 765
Prospects of the Southern Series, 304

Position at the Consolidated Langlaate, 517
Position at the Roodberg Mine, 805
Position of the Cape Copper Companies, The, 212
Position of the Knight Central, 576
Present Position in Katanga, The, 83
Present Position at Randfontein, 610
Prevention of Accidents in Mines, The, 650
Progress at Messina Copper Mines, 743
Progress at Avercruising Steel Works, 829
Progress at West Rand Consolidated, 234
Progress in Ore Dressing, 805
Progress of Construction at the Van Ryn Deep, 638
Progress of the Goerz Group, 366
Progress of Manicaland Mining, 178
Progress of Rand Mining, 740
Progress of Sand Filling, 548
Progress of the Tin Industry, 649
Progress of the "T.C.L.", Recent, 743
Proposed Natal Native Labour Association, 78
Prospects of Increased Dividends This Year, 765
Prospects of the Southern Series, 304

Persistence of Rand Ore in Depth, 176, 208
Petroleum in Madagascar, 141
Petroleum in South Africa, 707
Photolysac, 45
Pilgrimsberg Volcano, The, 773
Pilgrim's Rest and Barberton Goldfields, 680
Place of Electricity on the Rand, The, 650
Position at the Consolidated Langlaate, 517
Position at the Roodberg Mine, 805
Position of the Cape Copper Companies, The, 212
Position of the Knight Central, 576
Present Position in Katanga, The, 83
Present Position at Randfontein, 610
Prevention of Accidents in Mines, The, 650
Progress at Messina Copper Mines, 743
Progress at Avercruising Steel Works, 829
Progress at West Rand Consolidated, 234
Progress in Ore Dressing, 805
Progress of Construction at the Van Ryn Deep, 638
Progress of the Goerz Group, 366
Progress of Manicaland Mining, 178
Progress of Rand Mining, 740
Progress of Sand Filling, 548
Progress of the Tin Industry, 649
Progress of the "T.C.L.", Recent, 743
Proposed Natal Native Labour Association, 78
Prospects of Increased Dividends This Year, 765
Prospects of the Southern Series, 304

Question of Development, The, 801
Question of Tin Ore Reserves, The, 391

Rand Dividend Payers, 439
Rand Gold Output up-to-date, 612
Rand in 1912, The, 106, 517
Rand Industrial Problems, 521
Rand Industrial Question Reviewed, 616
Rand Ore Reserves and Milling Capacities, 363
Rand Output in 1912, 641
Rand Ref Values at Depth, 831
Rand Workers and Technical Education, 119
Rand Working Costs and Stamp Capacity, 339
Rand's 1912 Dividend List, 475, 515
Rand's Idle Stamps, The, 741
Randfontein Dividends, 574
Rarer Minerals in South Africa, 401
Recent Progress of the "T.C.L.", 368
Recent Steam Turbine Practice, 626
Recent Strikes in Shafts, 710
Reduction of Railway Rates, 20
Re-organization of the Knights Deep Equipment, 400
Research upon a Refractory Gold Ore, A, 111
Review of Rand Progress, A, 409
Rhodesia Broken Hill, 190
Rhodesia, Some Gloomy Views, 582
Rhodesia's Premier Producer, 151
Road Motor Transport in South Africa, 461
Rock Crushing Efficiency, 238

Sand Filling at the Wit. Deep, 707
St. John Ambulance Work and the Mines, 652
Shaft Sinking on the Further East Rand, 211
Shortcomings of De Beers, 518
Situation on the West Rand, 611
Skip Accident on the East Rand, 38
Smelting of South African Titaniferous Ores, The, 718
Some Mine Accountancy Problems, 77
Some Present Day Aspects of the Labour Question, 523
Some Resuscitated Mines?, 800
Some Shortcomings of Present-day Rand Mining Methods, 311, 487
Sorting Problems, The, 113
Stamping Capacities and Metallurgical Costs, 711
State Aid to Mining: Westralia's Example, 408

Tanganyika Concessions, 614
Technical Education for Young South Africans, 402
Technical Education on the Rand, 550
Tin Deposits of the Cape, The, 37
Tin Fields, The, 746
Tin Industry, The, 269
Tin Position, The, 180, 112, 766
Transvaal Prospecting Permits and Claims, 771
Transvaal and Rhodesian Estates, 686
Transvaal Tin Deposits, 476, 520, 552, 573

United Jack Gold Mine, 314

Village Deep Progress, 337
Van Ryn's Late, The, 643
Ventilation and Hygiene in New Zealand Mines, 651
Village Deep Progress, 337

Was it Prospecting in the Transvaal, The, 336
What are Profits? 478
Waterspraying Section of the Rand, The, 738
Working Costs on the Rand, 1912, 742
Working Costs at 8,000 feet, 270
World's Leading Gold Mines, The, 479, 511
Witwatersrand Compensation in the Transvaal, 44

Zinc in the Transvaal, 360

STATISTICS.

British Trade with South Africa, 25, 785
Building, 61, 93, 286, 561

Cape Alluvial Diggings, 88
Cape Coal Trade, 61
Cape Property, 756
Cape Wines, 594
Cattle Trade, 25
Corner House Mines, 609

Delagoa Bay Trade, 661
Delagoa Coal Trade, 629
Diamond, 556, 802
Dividend, 475, 515, 549, 575
Dividend, Rhodesian, 749

Estate Duty, 61

German S.W. Africa, 25
German Trade with South Africa, 758

Gold Output, The Rand's, 642, 656
Grades, Costs and Profits, 127, 287, 656, 558

Imports, Dine, 93, 695

Katanga Trade, 196

Labour, European, 106
Labour, Native, 106, 209, 710, 373, 481
Labour Native, Rhodesian, 248, 275, 349

Mine Store Production, 93
Mozambique Trade, 356

OUTPUTS.	Minerals, Manicaland, 712 Minerals, South African Union, 118, 242, 838 Minerals, S. Rhodesian, 583 Minerals, Rhodesian, 156, 277, 453, 858, 716 Minerals, Rhodesian, 1912, 712, 715 Minerals, Transvaal in 1912, 712	Property, 815	South African Railways, Pur- chases, 375 South African Railways, Rates, 501 South African Railways, Revenue, 321, 385, 463, 662, 694 South African Railways, Traffic, 692
Coal, Natal, 1924		Rand Profits in 1912 and 1911, 833 Rand Wages, 794 Rhodesian Railways, 809 River Diggings, 161	Tin Market, 766
Diamonds, German S.W. African, 720	Sugar, Natal, 814		
Gold, Rhodesian, 375 Gold, Transvaal: August, 55; September, 181, 183; October, 315, 345; November, 495, 551; December, 617, 656; January, 751, 779	Tin and Copper, South African, 444	Share Market, 681 South African Railways, Con- struction, 160	Union Finance, 286, 421, 785 Union Ports, 463 Union Trade, 253, 321, 507, 815





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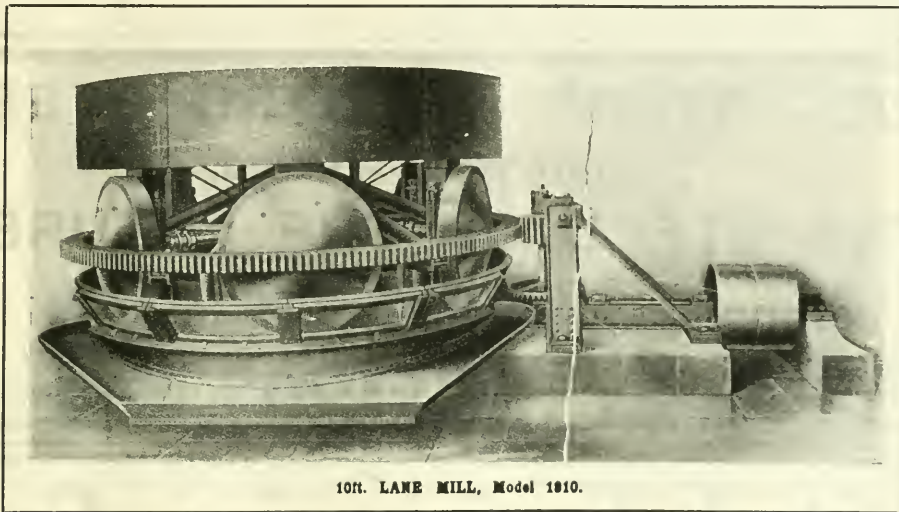
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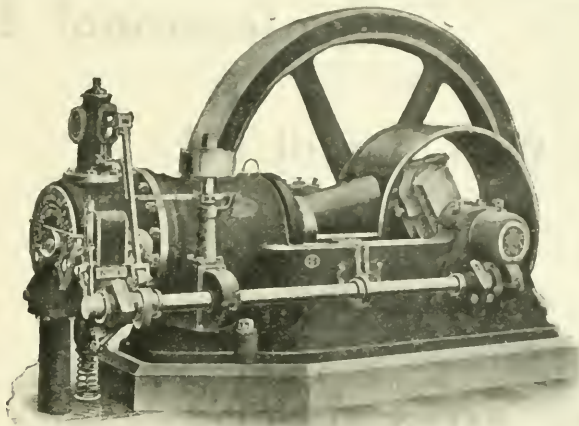
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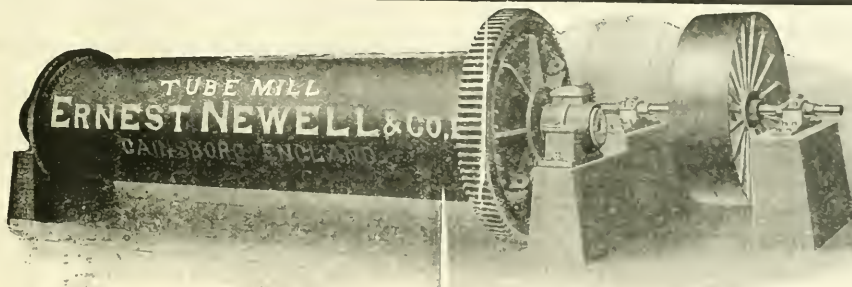
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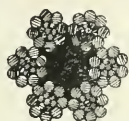
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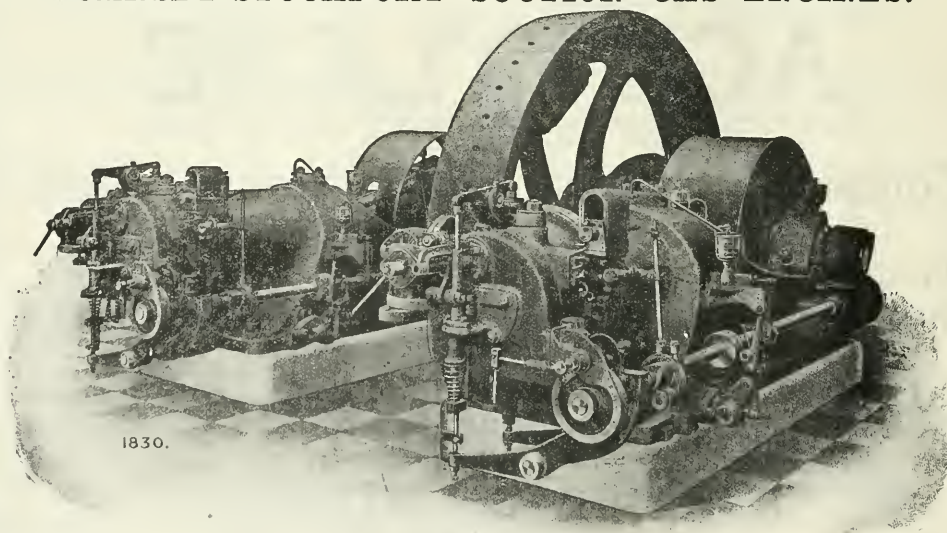
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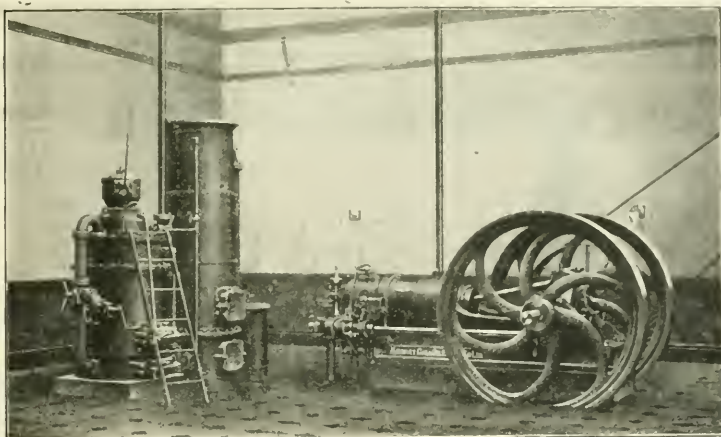
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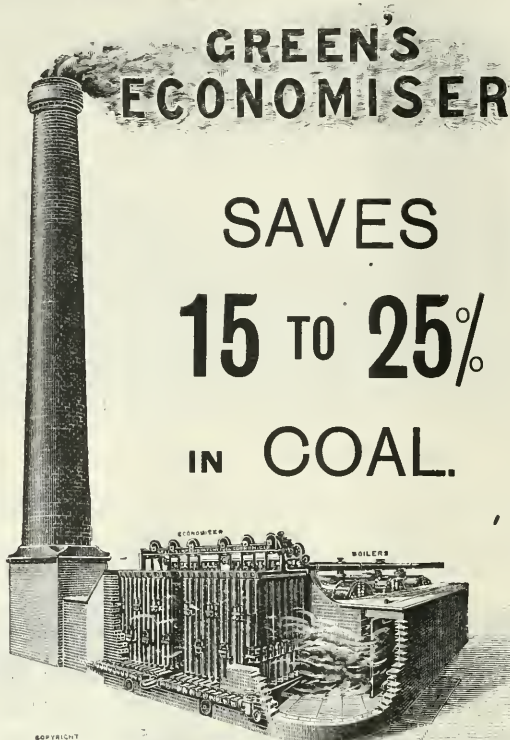
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CONTENTS.

PAGE.

Notes and News	1
Topics of the Week:	
How to Attract Capital	3
Mine Managers' Examinations	4
Crown Mines Debentures	4
New Mills for South African Gold Mines	5
Position at the Witwatersrand Deep	6
Outside Mines of the Transvaal	7
The Anti-Malarial Association	8
Development Results at "Eckstein" Mines	9
The Treasury Year	10
The Year with Swaziland Tin, Ltd.	11
Oil in South Africa	13
The German S.W. Diamond Fields	14
Uniformity in Grading Analyses	15
The Brakpan Government Lease	16
Rhodesian Section:	
Latest Mining News	17
Latest from the Anglo-German Tins, Ltd.	19
Mining Men and Matters	19
Reduction of Railway Rates	20
Correspondence and Discussion: "Sandyeroff, Ltd."	21
The Week in the Sharemarket	21
Engineering Notes and News	23
Finance, Commerce and Industries	24
Automobile Notes	27
The August Output	29
Company Meetings	31
Index to Advertisers.	

Notes and News.

In our advertising columns will be found an advance copy of the annual report of the Johannesburg Consolidated Investment Company, Limited, which this year possesses many bright features. Particular attention is drawn to the excellent returns of the first assays from the two shafts in the State mines, and everywhere through the report there is evidence that the confidence that marked the speeches of Mr. John Munro and Mr. Imroth at the annual meeting of the "Johnnies" company last year was fully justified.

There does not seem to be any immediate likelihood that the engineers of the Central Mining Corporation will rejoin the Mines Trials Committee; and it is possible that if they do not do so by next year, the organisation may dissolve. That, at least, is the view held in some quarters, where it is conceivable, however, that the wish is father to the thought.

The tests of the Ebenezer have been completed, and work suspended at the property. We are glad to hear that Mr. Tom McLelland has recovered from his recent severe illness, and is now about again, and able to take an interest in the important developments at the Frank Smith mine.

Whether the rise in Roberts Victor has been caused by mere bear covering is a moot point. Unofficial cables printed in London are to the effect that the claim area is expanding in depth and opening up well. In the new area the yellow ground so far exposed down to the 100 ft. level amounts to 220,000 loads of good quality. The output is expected to increase gradually.

It is understood that the Gold Fields Rhodesian Development Company has taken over the Venice, Baroque, Tangiers, and other properties belonging to Messrs. Moser Brothers in the Umsweswe district. New machinery is being installed, and active development is being undertaken.

In the course of an article in our last issue dealing with the East Rand Proprietary Mines, we referred to the property as having "passed under the management of the Corner House." This is, of course, incorrect, the management remaining to-day under the joint aegis of Sir George Farrar and the Corner House, both strenuously working to secure the maximum of success for the property.

If an ability to make fine distinctions is essential to the art of clear thinking, an ability to note fine variations in Rand mine nomenclature would seem equally essential to the investor who would achieve success in the art of money-making. In the London financial papers to hand by this mail it is amusing to note the delightful air of negligence with which the names of well-known properties in the Modder district are confused. Investors are advised to buy Modder B.'s, because, forsooth, of the excellent shaft assays and the striking of the reef; and the high values in the western section of the Modder Areas are spoken of when the Modder B. mine is clearly meant. It would seem that the New Modder, Modder B., Modder Areas, and Modder Deeps stand in need of more careful distinction in the eyes of hurried Press and Stock Exchange people, and we would suggest that the last three names have their qualifying adjuncts put first, and that they be renamed "A" Modder, "B" Modder, and Deep Modder, the New Modder retaining its own honourable position.

It is stated in Belgium that the engineers have discovered a satisfactory method of dressing the ore of Tanganyika, and the proper charge and mixing of ore, flux, and fuel for the blast furnace. These matters are of particular importance in the economical reduction of the Katanga ores by reason of the geographical situation of the mines and the sources of fuel supplies. Practically all operations hitherto have been conducted as experiments to the end of finding a suitable smelting charge.

* * * *

A special cable to the *Financial News* from Johannesburg, in mail week, reported improved market conditions, gave "substantial reasons for the revival of interest," and said:—

"The dulness which has characterised the market for such a lengthy period is rapidly giving place to animation. The local Stock Exchange presents a distinctly busy appearance, and there is no denying the fact that the outlook is improving. The explanation of the increasing public participation in market dealings is of a triple nature. It is due (1) to the better feeling engendered and the hopeful prospects created by the reorganisation of native labour recruiting agencies; (2) to a realisation of the excellence of the reef strike in the Modder Deep No. 1 shaft and what it portends for the district as a whole, as well as to the capital developments taking place in all the mines in the Modderfontein district; and (3) to the sympathetic attitude displayed by the Government towards the industry, as exemplified by its discountenancing the miners' agitators. The mining industry has suffered many pin-pricks in the past, and the fact that the Government is now sympathetic, while, of course, keeping its eye on various important matters, is of distinctly hopeful augury. Encouragement is all that is necessary, and it will not be long before the promises made in connection with some of the great amalgamating schemes come to fulfilment."

* * * *

Samples of tin-bearing rock from Klipplaatdrift have been brought to town within the last few days, and apart from the fact that they carry cassiterite in promising-looking quantities, they are interesting as proving the existence of what is clearly a fissure of important dimensions. The discovery of tin in fissure material was reported some time ago from this property, and the samples tend to confirm the information. They show by their shikensided appearance that considerable movement has taken place, and are evidently themselves fragments of country rock which have been ground up in the process. The fissure has been traced, we understand, for some 2,000 feet, and there is no doubt that it extends for a considerable distance. Klipplaatdrift adjoins Bellevue, upon which similar fissures are said to have been discovered. The fact that tin ore was subsequently deposited in the fissure, together with fluor spar and other minerals, is of great interest. The occurrence is, as far as we know, the first instance in which a deposit of this particular kind has been observed in the granite of the north-east Waterberg, and the circumstances are sufficiently favourable to warrant further development upon an ample scale. The shaft from which these samples were taken is about 80 feet deep, and the average width of the fissure, which runs, roughly, north-east and south-west, is said to be five feet.

* * * *

The Premier's reference at Parys last week to the mines was characteristic, the Premier endeavouring to resuscitate the old fallacy that money makes the country poor. "Thirty millions of gold were taken out of the mines annually, and the country consequently became poorer by that amount," said General Botha at Parys. He omitted to point out that the obtaining of this gold involves the expenditure of a

huge sum annually in wages, coal, machinery, etc., the bulk of which sum is circulated in South Africa, and enables consumers to live here, and to buy the produce of the farmers, and that it is the requirements of the mines and the traffic their development has created that is largely responsible for our main lines of railways, and for their success. Without the mines there would be no Kimberley, and no Johannesburg. General Botha ignores this aspect of the mining question—which at present, at any rate, is the most important factor in the finances of the Union.

* * * *

The thirteenth general congress of the Newspaper Press Union of South Africa will take place at Bloemfontein on Tuesday, 15th October, at 10 a.m. A record gathering is expected and there is very important business to be transacted in connection with the forward policy which has recently been inaugurated by the Union. Proprietors of newspapers, not members of the Union, but desiring to join, should apply at once to the hon. secretary, Mr. E. C. Sellick, Somerset East, Cape Province.

* * * *

Although the position in regard to transport has been much improved in the Zoutpansberg during the last couple of years, because of railway construction, no real progress in gold mining in this vast area of the Transvaal is noticeable. In the month of July three mines were dropping stamps, and these crushed 2,853 tons for a total yield of £2,302, of which £2,000 was won by amalgamation. In addition, two reef diggers declared an output of £410. Dredging for gold in the Northern Transvaal has not as yet proved much of a success, but attempts are still being made to win the precious metal in this manner. We understand that a new venture, styled the El Oro, has recently commenced operations in the Pietersburg district, and that satisfactory outputs are being secured. Near Haenertsburg a certain amount of work is being carried out, mainly on the old Woodbush property, the owners of which are hopeful of securing profitable results. The Horseshoe property, however, which adjoins the Woodbush, has been closed down. There is no cyanide plant on the property, and the ore has been found of such refractory nature that the recovery over plates alone is insufficient to pay expenses. Apparently it will require even something more than new railways to re-interest capital in the far Northern fields, which a quarter of a century ago were romantically active.

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The re-entry of Sir Abe Bailey into the field of Rhodesian mining and finance has proved one of the sensations in "Kaffirs" during the past fortnight. It will be recalled that he went to England faced by law suits with the Amalgamated Properties Company, and it was generally given out that he had retired from Charterland mining. Apparently, however, Sir Abe Bailey has decided to re-interest himself in Southern Rhodesian mines and matters. The reported purchase by him of a large interest in the Cam and Motor property near Gatooma would seem to indicate that, although the Rhodesia Exploration and Development Company has passed into the hands of the Consolidated Gold Fields of South Africa, it is Sir Abe Bailey's intention again to become a power in industry beyond the Limpopo. Despite contradictions from Salisbury, it has been clear for some little while past that some important move has been on the tapis in connection with the affairs of the London and Rhodesian Mining and Land Company, and the acquisition by the "Bailey" group of a large interest in the most important subsidiary of the Corporation abundantly confirms the belief. Although wholly lacking in official confirmation, there is a rumour current in Salisbury which may have more than a substratum of truth attaching to it. It is to the effect that a new and powerful corporation is being formed in London to exploit the mineral and agricultural wealth of Rhodesia by Sir Abe Bailey, Dr. Hans Sauer, and Mr. H. G. Latilla, with Mr. H. Ewer

Jones as consulting engineer. Whether this be true or not, it seems unquestionable that Sir Abe Bailey and Dr. Sauer are likely to be quite as important to Southern Rhodesia in the future as they have been in the past.

* * *

The mines of the Goerz group are doing much better than in the earlier months of the year, and

The Coerz Mines. with Geduld and the Princess Estate looking very well, the prospect of still further improvement is undeniably good. In July, 70,200 tons were crushed by the four producing mines of this group for a profit of £13,185. During August, Geduld had a very good run, and the profit for last month is larger than that earned in July. Development is proceeding satisfactorily, and good progress is being made in connection with the erection of the new equipment. At the Princess, too, the position shows improvement. The profit for August was a few hundreds better than the July earning. The mine is gradually getting into its stride again. At the Lancaster West there is very little to report. Taken all round, the labour position on the mines of the Goerz group is satisfactory. As to the Modder Deep Levels, we are officially informed there is nothing new to report. Cutting the shaft station is proceeding, and it will probably be some little time before there is anything further to report regarding development values.

* * *

The Council of the Institution of Mining and Metallurgy are prepared to offer five scholarships for the current year (provided suitable candidates present themselves) of the value of £50 each, to assist graduates in mining or metallurgy to take a practical course in mines or works at home or abroad. These scholarships, although entirely distinct from the post-graduate courses of the Institution, may be held by graduates selected for those courses. The scholarships will be awarded to graduates of the Royal School of Mines and other recognised British Mining Colleges or Schools. The following are the conditions of award:—(1) The candidate shall be under 25 years of age; (2) the candidate shall have completed the course for the diploma in mining or metallurgy within one academical year of his nomination for a scholarship; (3) the candidate shall have passed first class in mining or metallurgy; (4) the post-graduate course shall be taken in mines or works, at home or abroad, to be approved by the Council, and the holder of the scholarship must keep a record of his work to be submitted to the Council at the close of the course.

* * *

Applications for post-graduate courses, in various parts of the world, under the auspices of the

Post-Graduate Practical Courses. Institution of Mining and Metallurgy, should be sent to the secretary not later than September 1st next. The courses are confined to selected graduates of the Royal School of Mines and other colleges (who, if they are not already students of the Institution, must apply for admission immediately after their selection) who have obtained diplomas or degrees after taking a specialised course of not less than three years in mining or metallurgy and the allied sciences. Applications must be endorsed by the Professors of Mining or Metallurgy under whom candidates have been trained, and full particulars of their age, general education and training must be given. Selected candidates are required to pass a medical examination on behalf of the Institution. The courses commence about the middle of December, and those selected are expected to sail in November. Graduates pay their own passage to the mines to which they are appointed, but receive from the mine owners remuneration which varies in amount in different districts, but which in all cases is sufficient to cover the cost of living. The course is in most cases for one year, and during that time graduates are rotated through the various departments of the mine or works to which they are sent, at the discretion of the manager.

TOPICS OF THE WEEK.

HOW TO ATTRACT CAPITAL.

IN our last issue an article on the dearth of capital in South Africa concluded with the suggestion that Government should consider a proposal to retain in the country some of the enormous sums yearly sent out of it in the shape of insurance premiums. The suggestion merits fuller consideration than the space devoted to it last week admitted, and is of sufficient general importance to justify amplification. In financial, as in industrial matters, this paper endeavours to pursue a policy of moderate, constructive criticism, and it would be the last to suggest any interference with the free play of financial enterprise, were we not satisfied that the proposal is fraught with enormous benefit to the country, and is not directed against any outside interests in particular. Indeed, Canada, which is justly famed for its Imperialism and loyalty to the highest interests of the Mother Country, has set the example in this matter which, it seems to us, South Africa would do well to follow. Briefly, the Insurance Law in the Dominion lays down that every foreign insurance office doing business within its borders must invest in Canadian securities, and deposit those investments, to the extent of its actuarial liability towards policy-holders resident in Canada. The application of this law in South Africa means that for the £22,000,000, which is approximately the total insurance effected in this country with foreign companies, a sum of, say, £6,000,000, as actuarial estimate of the present reserve necessary to meet that liability, would have to be invested in the country. If we take the amount actually invested in South Africa to-day by the foreign insurance companies, including the deposits, under the Insurance Law, with the Government, as being, roughly, £1,000,000, we have £5,000,000 additional capital made available within the Union. In addition to this large sum, there would be further yearly amounts available on account of the annual premiums payable to foreign companies. The effect of these increases to the capital supplies of the country need not be laboured. It is evident that they would go far to meet that dearth of funds available for mortgages, bank deposits, and the finance of trade which has been noted in recent issues. Arguments against the step, of course, will be many. For instance, it may be urged that it will frighten some foreign companies out of the country. But on examination this can be shown to be a bogey. For the leading foreign companies already have too big a stake in South Africa, in the shape of land, buildings and investments to have the desire or freedom to leave it, and the going of any one or two of the smaller companies would hurt nobody. On the other hand, it would certainly mean increased work and importance for the South African offices of foreign insurance companies, and this should serve to commend the suggestion to those managers in South Africa who now oppose it. No attempt is here made to make close estimates of the amounts involved by this suggestion, for they are, clearly, immaterial for the purpose of the argument. It is enough that the country is crying out for more capital; that the suggestion here made is eminently feasible and clearly capable of removing the defect to a great extent; and that we have the example of Canada to guide and strengthen the resolve. The views of our insurance readers on the subject would be extremely, though, doubtless, antagonistic; and the suggestion may in the meantime be commended to the Government as one worth serious consideration.

MINE MANAGERS' EXAMINATIONS.

A SUBJECT of frequent criticism among Rand mining men is the extraordinary regulation that compels an experienced mining engineer, however long in the country, to pass an examination in the elements of mining before he can become the holder of a mine manager's certificate. It is contended—and rightly, we think—that it should be enough for such an experienced mining engineer to pass an examination in the mining law and mining regulations of the colony, and that he should be spared the humiliation, possibly the mental effort necessary to "getting up" knowledge of subjects which he had long forgotten. We confess our sympathies are entirely with those who argue in the latter fashion. Some of them we know to-day hold responsible positions as consulting engineers to groups of mines on the Rand. But they are debarred from acting as manager of a mine, to which they are qualified to act in the higher capacity of consulting engineer. The anomaly calls for serious consideration on the part of the Mines Department, and we would be glad to print the views of those who hold that under the present system much real injustice is done. It must never be forgotten that mere ability to scrape through an examination is no test of special fitness or knowledge. Only the other day the New South Wales Mines Department announced that it was prepared to recognise the diplomas of proper universities and mining schools as evidence of an applicant's knowledge of the theory of mining, and as a substitute for their own theoretical examinations. This is an important concession, as previously that Mines Department only held their examinations once a year, an engineer from other Colonies going into New South Wales just after the examination, even if his practical experience was all that could be desired and he held a diploma from a first-class mining school or university, could be held up for a year awaiting examination before he could get a certificate. Again, in Queensland the whole subject of mine managers' certificates has been handled in a satisfactory manner by the Mines Regulation Act, 1911; and section 4 of part IV. of that Act, which corresponds with the New South Wales sections, would be accepted here without demur. It reads as follows: "(1) On payment of the prescribed fee the Board may, without examination, grant a first-class or second-class certificate to any person of good repute, who satisfies the Board that he is a resident in Queensland, and who produces to the Board satisfactory evidence that he has had not less than three years' practical mining experience, and that he has passed at any university or school of mines recognised by the Board examinations corresponding to those required for such certificates under this Act." This discussion raises another point, consideration of which gives a strong argument in favour of the advisability of adopting the Queensland section in any amendment to the South African Law. At present, if a mining engineer wishes to practise his profession freely in any part of the Empire, it is necessary, when he is a young man and therefore often thoughtless, carefully to consider the Mining Laws of the various Colonies, and thus qualify himself for a certificate in each Colony. There is no regular procedure for the recognition of one Colony's certificate in another, and surely the mining engineers should combine and endeavour to get the various Mines Departments to come to some arrangement so that once a certificate is obtained in any one Colony it can be registered in any other upon the payment of a small registration fee. With a profession in which the members have to wander about to the extent to which it is necessary in mining, this question of interchangeability of certificates is one of the very first importance, not only to all mining

engineers themselves, but also to those controlling mining operations, because it often happens that when applications are being considered for a vacant mine managership the applicant who has perhaps the best credentials and would be most fitted for the position is passed over because he has not a certificate from the Colony in which the mine is situated. The practice which is sometimes adopted of appointing a dummy manager, with a certificate, under the control of the real manager, is not one that should be encouraged.

THE CROWN MINES' DEBENTURES.

THE passing of the resolutions relating to the debenture issue of the Crown Mines concludes the preliminaries of a financial operation which is intended to place this immense undertaking upon a sound and satisfactory working basis. The details of the scheme are sufficiently explained in the speech of the chairman, Mr. Samuel Evans, on the occasion of the extraordinary general meeting which was held on the 30th ult., a report of which appeared in our last issue. The circumstances of the meeting gave Mr. Evans an opportunity of dealing at some length with the progress and present condition of the great enterprise over which he presides; and, as usual, the opportunity was not marred by any rhodomontade or specious talking, but was taken advantage of to reassure shareholders and the public generally in plain, convincing terms, supported by sufficiently eloquent figures, that the position of the Crown Mines was "more promising than even the most sanguine had ventured to hope for at the outset." The directors, having had the courage to decide upon a scheme of development which involved a long period of unproductive expenditure, and having with equal confidence confronted unexpected difficulties and wearisome delays in the carrying out of the work, in the face of constant criticism and suggestions of failure, have now the gratification of seeing that the policy they adopted was right and that its results have abundantly justified the choice. The success which Mr. Evans so clearly demonstrated as having attended the efforts of the board and the management has been the result of thoroughness, and it is just this character of thoroughness which particularly distinguishes the carrying out of the Crown Mines scheme of expansion from other schemes of a similar kind upon the Rand. In viewing the possible and probable consequences of amalgamation it has not always been perceived that mining operations upon the vast scale are attended by economic problems of a special kind, and failure to appreciate this fact has been painfully and glaringly evident in the recent history of some of the more prominent combines. The Crown Mines, however, either through an unusual degree of foresight, or through a prudent resolve to learn from the experience of others, has evidently dealt with these problems in an adequate and very capable way. Every step has been carefully considered and every move has been taken definitely and with effect. There has been no undue haste and no spectacular display, and when the whole plan of reconstruction and enlargement has been completed the undertaking will start fully conditioned and prepared, as far as human prevision and labour can make it, to carry out the splendid routine of profit winning which was in view when the amalgamation was first proposed. As a consequence of this, the debentures which are now offered to the shareholders and to the public possess a degree of security which is greatly in advance of that of most mining debentures, even on a lower scale of issue, and, recommended as they are by the guarantee of the Central Mining and Investment Corporation and the Rand Mines, there should be little difficulty in getting them placed in desirable hands.

NEW MILLS FOR SOUTH AFRICAN GOLD MINES.

The Lull in Construction Work on the Rand—Features of the New Rhodesian Equipments.

For the time being there is very little doing in regard to the erection of new milling plants on the Witwatersrand. The large schemes of construction conceived about the time the numerous ambitious amalgamation projects were planned have virtually all been completed. Thus the Crown Mines is now possessed of three large reduction plants, having a total capacity of 2,640,000 tons per annum, and in addition the Bonanza mill, giving the company ability to crush and treat over two and three-quarter million tons per year. Randfontein possesses 1,000 stamps, and the East Rand Proprietary, although it was stated some time ago that further crushing equipment was to be installed there, continues to operate 820 stamps and 25 tube mills. Additions to existing plants are from time to time being made, but even in this direction there appears to be very little doing at present. Last month there were in operation on the Witwatersrand 9,460 stamps and 261 tube mills—the total amount of ore crushed by these amounting to 2,149,785 tons. There is a general conviction abroad that the Witwatersrand has almost reached, if not quite reached, its maximum rate of crushing. There are, of course, further areas which in the near future will require entirely new equipment—areas such as the Modderfontein Government Areas and the Modder Deep Levels—and numbers of plants are to be extended when development has further advanced and the labour situation admits of the operation of a larger battery. But against these facts it must be recorded that within the next few years a number of important outcrop and first row deep deep producers unless absorbed by, or united with, adjacent properties will cease to produce.

WHERE NEW MILLS WILL BE ERECTED.

Whilst we fully recognise that not a few of the mines which have helped greatly to build up the Transvaal mining industry are approaching exhaustion, we believe that within the next half-a-dozen years the mines of the Rand will largely increase the tonnages mined and milled each month. Further increases in ore milled, however, will be mainly obtained through extensions of existing plants, such as the City Deep, Cinderella Consolidated, Village Deep, and Modder B. Apart from the further east Witwatersrand and the Rand Collieries—Van Dyk area, it is unlikely that any further new mills will be erected along the Main Reef. From Randfontein to Benoni there is an almost uninterrupted line of producers, and the outcrop and first row deeps will, as the years go by, take in the areas lying to the south and crush ore from these mines in the plants which they possess to-day. There will, of course, be very large augmentation of equipment at certain mines during the next few years. On the Further East Rand there will be erected two or three new milling plants within the next lustrium,

but for the present only one new plant is on order—that for the Van Ryn Deep, Ltd., which is to be of 40,000 tons per month capacity and should be at work in twelve months' time.

NEW PLANTS IN RHODESIA.

In Southern Rhodesia contractors are busy in connection with the preliminary details of four new large plants—the Shamva, the Falcon, the Cam and Motor, and the Antelope. Each of these will possess distinct features and should attract considerable attention in engineering and metallurgical circles. Thus the Shamva will be equipped with Nissen stamps, such as are in use in a portion of the City Deep battery. The Cam and Motor equipment will in some respects resemble the large plants erected on the West Australian gold fields and the method of treatment adopted will assimilate several details of latest Kalgoorlie practice. The Falcon reduction and treatment equipment will be of 180,000 tons per annum capacity, and the cost is estimated at £210,000. The Falcon is a gold-copper venture and accordingly concentrating machinery will constitute an important item in the equipment. There is a considerable amount of interest too being taken in the Antelope plant. This mine lies in the dry, arid district situated to the south-west of Bulawayo, and in view of the acute shortage of water in that locality it will be of dry crushing type.

Whether the next few years will witness the application of any revolutionary ideas to the metallurgy of South African gold treatment or no, it is difficult to say. The majority of Rand plants are now obtaining extractions of 94 per cent. and over, and not a few of the newest Rhodesian equipments are obtaining nine-tenths or more of the gold contents as estimated from screen samples. So long, however, as any of the gold actually present in the ore goes away to the dump heap there will be scope for improvement. But apart from this there will always be a wide field open to the ingenuity of inventors, metallurgists and engineers in such matters as increasing capacity, decreasing capital cost and operating expenses, and lessening the time occupied in treatment. In these directions there is more room—much more room—for progress and advance than merely in the betterment of the actual extraction or percentage of recovery. It is in these matters that we anticipate important developments within the next few years. Having just completed an admirable milling installation at the Consolidated Langlaagte Mines, the engineering staff of the Johannesburg Consolidated Investment Company are now engaged on the preliminary details of the Van Ryn Deep milling and treatment installation. This equipment will, of course, embody all the latest metallurgical and engineering ideas and methods, and we look forward to giving at an early date, full particulars as to the design of this plant.

New Transvaal Gold Farms.

An extraordinary general meeting of the New Transvaal Gold Farms, Ltd., was held last week in the Board Room, Exploration Buildings, the object being to consider a resolution for the reduction of the capital from £150,000, divided into 450,000 shares of £1 each, to £56,250, divided into 450,000 shares of 2s. 6d. each, such reduction to be effected by cancelling capital to the extent of 17s. 6d. upon each of the 380,000 shares issued, and by reducing the nominal amount of all the shares in the company's capital, including the 70,000 reserve shares, to 2s. 6d. each. Mr. D. Symons presided, and others present were Messrs. J. Crewe, J. Fraser, J. O. Reid, A. C. Fordred, B. Alexander, F. E. Shaw, S. Goldring, and G. M. Pemberton (secretary), representing 147,127 out of 380,000 issued shares. The chairman said:—The business of the present meeting is to deal with an instruction to the board from the shareholders, at

the annual meeting of the company on April 25 last, requesting them to convene a meeting of shareholders for an early date "to consider and decide upon the reduction of the capital of the company, by making the nominal value of the shares 2s. 6d. instead of £1 as at present." I may state that the board are fully in accord with the proposal to reduce the capital, and that the reasons given in favour of the proposed reduction in the last annual report appear to have appealed to a great number of shareholders—proxies representing 135,270 shares having been received in its favour, while not a single proxy has been received against it. A formal resolution for the reduction of the capital as given above was adopted, and the directors were authorised to carry it into effect. Replying to a question, the chairman said the directors would not deal with the reserve shares privately until the shareholders had been given an opportunity of taking them up.

POSITION AT THE WITWATERSRAND DEEP.

The Water Difficulties—A Better Profit and Excellent Development Values.

THE Witwatersrand Deep has proved rather a disappointing property of late. Last year the profit earned—£301,542—was slightly below that netted for 1910, this being entirely due to the increase in the native wages, as well as the cost of recruiting and feeding. Development work was restricted on account of an increase in the quantity of water pumped. This water trouble has continued to occasion the management trouble during the current year. In January, February, and March, 176,819,144 gallons were pumped. The water was drained away from the 14th and 15th levels, but this was attended by a corresponding increase on the 17th and 18th levels. It may be recalled that some years ago the Knights Deep had great difficulty with water, and this water has followed along a diagonal dyke running from north-west to south-east into the Wit. Deep property. As this water course runs diagonally, causing some displacement of the reef, it was necessary to crosscut through the dyke (called the water dyke) on all levels from the 12th to the 18th. Although large pumping stations had been cut and equipped, they proved inadequate to meet the exceptional inflow encountered when a crosscut intersected the footwall of the reef series in the 16th level. The rush of water was so great that before anything could be done to handle the increased quantity, the pumping station at the 18th level, already equipped to handle 1,500,000 gallons per diem, was flooded. This station was recovered by baling and by using sinking pumps, and the capacity of the pumping plant has since been further increased. The mine is now equipped to deal with 3,250,000 gallons per twenty-four hours. These troubles with water have resulted in an encroachment on ore reserves. At the end of 1911 there was fully developed and valued 1,436,202 tons, as compared with 1,692,922 tons at the end of the preceding twelve months. This tonnage was further reduced to 1,369,180 tons at the end of June. Mr. S. C. Thomson, the consulting engineer, forecasted such a development in his last annual report, as he wrote:—"It is difficult to make the position clear, for, while none of the workings are under water, it is necessary to draw off the water from each level in turn, starting with the 14th; that is to say, the work of development on the 15th level cannot be undertaken until

the flow from the 14th is much reduced, and the work on each level in depth must be delayed in turn until the water from the level above has been mastered. It is impossible to estimate the time it will take to drain the various levels, but, obviously, the longer normal development operations are delayed, the greater will be the depletion of the ore reserve and the greater the difficulty of keeping the mill supplied." As against the decline in tonnage (which, after all, can without great difficulty be made up for once the water trouble has been fully mastered), it is most satisfactory to note that development values show improvement. The average of the blocks in reserve at the end of last year was 6.79 dwts. per ton, whilst during April, May, and June 81,767 tons were opened up of a value of 8.35 dwts. over 48 inches—an excellent result. Development has been resumed on the 16th level, and the values and widths secured on the 15th level crosscut have been most encouraging.

The company earned a profit during July of £18,180, which is considerably in excess of the rate of earning during the three months ending with June. There were 38,560 tons crushed for a total yield of £54,275. It will be of interest to contrast this with the results obtained in the June and March quarters, and for last year. The comparative figures are:—

	Tons Milled.	Yield.	Profit.
Year 1911	500,330	£732,843	£301,542
March quarter, 1912	112,540	152,264	43,623
June quarter, 1912	111,750	157,662	50,770
July month, 1912 ...	38,560	54,275	18,180

On a per ton milled basis the results work out as under:—

	Revenue per ton.	Costs per ton.	Profit per ton.
Year 1911	29/4	17/3	12/1
March quarter, 1912	27/1	19/4	7/9
June quarter, 1912	28/3	19/2	9/1
July month, 1912	28/6	18/9	9/5

It is evident, then, that the profit tendency is upwards, and as the position on the lower levels with regard to water is got more under control, and development is resumed, the position of this thoroughly sound and long established East Rand deep level is likely further to improve.

East Rand Exploration.

A meeting of the East Rand Exploration Co., Ltd., was held last week for the purpose of considering the advisability of placing the company in liquidation. Colonel Dalrymple presided, and it was decided to liquidate the company. Mr. D. W. Austin, the acting secretary, was appointed liquidator.

Great Eastern Collieries.

At a meeting of the Great Eastern Collieries, Ltd., held at the offices, President Street, Johannesburg, last week, the chairman, Mr. Faleke, made a statement as to the position of affairs. He said that in accordance with the Companies Law the meeting had been summoned six months after the winding up. Two matters of importance had been settled. The claim of the South African Railways for £3,000 had been compromised, and the claim of the owners of the farm Grootvlei had been dealt with. Had these two claims been paid, the whole of the company's funds would have been swallowed. The present showing was that they would be able to pay £6,666 13s. 4d. The whole of the colliery plant had been sold by auction at satisfactory prices. The meeting then terminated.

City and Suburban.

Tons crushed, 27,862; gold recovered, 12,461 fine ounces; profit, £21,568.

Knights Deep.

OPERATIONS AFFECTED BY FIRE.

Revenue for the June quarter, £154,737, or 16s. 11d. per ton from 182,230 tons; costs £104,554, or 11s. 5d. per ton; profit £50,182, or 5s. 6d. per ton. During the current quarter 13,873,029 gallons of water were pumped from the mine, as compared with 12,388,585 gallons during the previous quarter. An interim dividend (No. 14) of 12½ per cent. was declared on June 18th. The directors state that on August 12th a fire occurred, completely destroying the crusher station of the Knights Deep-Simmer East joint plant. The damaged plant was fully insured, and, in addition, the company will receive payment under its consequential loss policies at the rate of £2,188 per week for so long as operations were totally suspended, and proportionately less after a partial resumption of operations was made. The company fortunately had in course of erection a new crusher station on up-to-date lines, and, pending the completion of the same, it was found possible to recommence crushing "fines" only on the morning of August 16. The new crusher station was brought into operation on the morning of August 19th, since which date the 270 stamps operated by the company have been working, although not at their full capacity. The return from operations for the month of August will be considerably affected by this stoppage, but it is hoped that normal conditions will be reached during the month of September.

OUTSIDE MINES OF THE TRANSVAAL.

Larger Output but no Expansion in Evidence—List of various Producers in the Outside Districts—The Insignificance of Alluvial Operations.

In an article dealing with the gold output of the so-called "outside" mines of the Transvaal, which appeared in this journal more than a couple of years ago, it was pointed out that, although our comparatively insignificant outside districts, with 38 odd mines, were producing almost half as much gold as the whole of Rhodesia from over a hundred similar sources, they were so overshadowed by the Rand that little account was taken of their capacity or their possibilities. According to the Mines Department statistics for January, 1910, the total gold output of the Transvaal for that month was as follows:—

	Ozs. Fine Gold.	Value
Outside districts ...	22,649.766	£96,209
Witwatersrand area ...	579,971.186	2,463,561
	602,620.952	£2,559,770

The quantity produced by the outside districts was, therefore, a little less than 4 per cent. of that obtained from the Rand. Of this amount 38 mines declaring gold were responsible for 11,402 ounces, 15 reef diggers declared 213 ounces, 99 ounces were recovered by eleven alluvial diggers, and 15 ounces were tabled under the heading "miscellaneous." For July, 1912, the Transvaal figures are as given here:—

	Ozs. Fine Gold.	Value.
Outside districts ...	30,435.009	£129,279
Witwatersrand area ...	735,945.738	3,125,098
	766,380.747	£3,255,377

The gold produced from the outside districts was declared by thirty-seven mines with 29,557 ounces, fifteen reef diggers with 658 ounces, five alluvial diggers with 203 ounces, and tailings works and miscellaneous works with the balance of the output. Although the aggregate yield from outside has increased to a material extent, particularly in the matter of mine output, it can scarcely be said that enterprise has been augmented in this direction, the additional returns being the result of greater efforts rather than of an expanding activity. Where there were thirty-eight mines, for instance, in 1910, there were only thirty-seven in July, 1912; the reef diggers were not more numerous, while the alluvial diggers have become reduced in number to less than half. The "small men" who have been so prominent a factor in the making of Rhodesia are hardly in evidence in the Transvaal, and in a country where the facilities for the opening up and working of small mines are generally of a favourable character the opportunities afforded may be said to be practically neglected.

The following list of undertakings in the outside districts of the Transvaal has been obtained through the courtesy of the Mines Department. The data are those relating to July, and the number of stamps given represents those actually employed during the month:—

	Stamps Dropping.
<i>Heidelberg District—</i>	
Klipwal Pongola G.M. Co., Ltd. ...	5
New Heidelberg Roodepoort Tribute ...	20
Nigel G.M. Co., Ltd. ...	75
Sub-Nigel, Ltd. ...	30

The output for the Heidelberg district during July was 7,085 ozs., valued at £30,995, mainly from the three last-named mines.

	Stamps Dropping.
<i>Klerksdorp District—</i>	
Ariston Mine ...	10
Machavie G.M. Co., Ltd. ...	10
Quest G.M. and Dev. Co., Ltd. ...	30
Warren Hill Syndicate ...	20

Klerksdorp produced 2,718 ozs., valued at £11,546

	Stamps Dropping.
<i>Ottoshoop District—</i>	
Windheuveld Syndicate ...	10
I. Edgar ...	10

Ottoshoop, with one mine and one other producer labelled "reef digger" in the Mines Department statistics, was represented by 99.920 ozs.; very nearly 100 ozs., it will be observed. Only the penalty attached to the rendering of incorrect returns could have prevented the declaration of the globular sum, and perhaps a little over. Those who protest against the "illogical precision in mine reports" will be interested to learn that the amounts concerned were 67.970 ozs. and 31.950 ozs. The total value of these quantities was £425.

	Stamps Dropping.
<i>Barberton District—</i>	
Agnes G.M. ...	5
Alpine Syndicate, Ltd. ...	5
Barrett G.M. Co., Ltd. (direct cyaniding) ...	—
Beaver Trap Mine ...	10
Benoni Venture Syndicate, Ltd. ...	5
Clutha Mine Tribute ...	30
Coetzestroom Tribute (direct cyaniding) ...	—
Consort Mine ...	20
Imperial G.M. Syndicate, Ltd. ...	10
Komati Mines, Ltd. (no clean up) ...	10
New Fortuna G.M. ...	30
North Star Mine ...	10
Rosetta Mine (Sheba G.M. Co., Ltd.) ...	20
Sheba G.M. Co., Ltd. ...	70
Ulundi G.M. Co., Ltd. (no clean up) ...	9
Worcester Expl. and G.M. Co., Ltd. ...	40
E. Bingham (no clean up) ...	5
Cook and Christensen ...	3
A. Danks ...	2
Florence Reef ...	1
Hester G.M. ...	3
P. Riquarts ...	3
H. W. Peacock (alluvial) ...	—

The Barberton mines yielded 6,815.417 ozs., worth £28,950; 107.920 ozs., valued at £458, were obtained by "reef diggers"; one alluvial venture recovered 171 ozs., worth £722; the balance of the total of 7,110.087 ozs. from the district, which were valued at £30,201, coming from tailings works and miscellaneous sources. The H. W. Peacock mentioned at the end of the list is the alluvial digger in whose working near Kaapse Hoop the wonderful nugget was found, and the 170.920 ozs. declared is evidently the weight of the nugget itself. If so, it would appear that no other gold was found in the sluice boxes during the period under discussion, or that the finder ceased working for a spell after he had brought it to light. It is interesting to

note that only one alluvial undertaking is in progress in a district where great things were being anticipated from this source a year or so ago.

Pilgrims Rest District—

	Stamps Dropping.
Buchanan G.M. Syndicate	5
R. Burnham Syndicate	5
Ceylon Lydenburg, Ltd.	5
Conberis Syndicate No. 2	5
G. H. L. Tributing Syndicate	10
Glynn's Lydenburg, Ltd.	20
Jollie Bright Syndicate	5
Klein Sabie Gold Mine (cyaniding)	—
Mac-Mae Syndicate	5
New Lisbon Berlyn, Ltd.	20
Rietfontein (T. C. L.), Ltd. (no clean up)	
2 Nissen stamps.	
Trans. G.M. Estates, Ltd. (Central)	60
" " " (Elandsdrift)	5
" " " (Vaalhoek)	10
Wanderers Syndicate	5
R. L. Houston	4
Little Octopus	5
B. McClusky	3
H. Petersen	2

	Stamps Dropping.
Pilgrims Progress	2
W. Tucker (Pestle and Mortar)	—
Welcome Mine (Pneumatic Mill)	—
W. Davies (alluvial)	—
T. Hardingham (alluvial)	—
Hoppe Weilbach and Jankowitz (alluvial)	—

The Pilgrims Rest district declared 12,783,330 ozs., valued at £54,300, for July. The greater portion of this came from mines, the Glynn's Lydenburg and Transvaal Gold Mining Estates having produced between them 10,062 ozs., worth £42,741.

	Stamps Dropping.
<i>Pietersburg District—</i>	
Griffin G.M. Co., Ltd.	10
Pneumatic G.M. Syndicate	4
Unity and Victory G.M. Co., Ltd.	10
H. E. Proprietary, Ltd. (Blue Jacket Tribute)	2
Miller G.M.	10

From the Pietersburg district 638,450 ozs., valued at £2,712, were obtained. Although alluvial ventures in that district have been much spoken of for some time past, there does not seem to have been much in the way of recovery from this source.

THE ANTI-MALARIAL ASSOCIATION.

A Useful Institution—Scope of Operations Extended.

We have received from the Secretary of the South African Anti-Malarial Association an illustrated card dealing with the danger of mosquitoes, and bearing instructions setting forth the methods of destroying these dangerous pests. The card, which has been issued in English and Dutch, and is also being printed in Zulu and Sesuto for distribution amongst the native population, is a distinct advance upon anything yet issued by the Association, and from the number of enquiries for copies received from all over the Union there is every indication that the subject of malaria prevention is becoming one of general interest. Arrangements have recently been made with certain Government Departments to have the Association's latest publication hung up in public offices, railway stations, and schools within, or bordering upon, malarial districts, and the assistance of field cornets has also been promised with a view to reaching the farming population. By these and other means many thousands of these cards and other of the Association's publications will be distributed to the best advantage before the commencement of the next malarial season. Accompanying the card is the annual report of the Association, from which it is clear that much valuable work has been, and is being, done by this useful institution. Since the last annual meeting of the Association, the scope of operations has been extended to include all those areas in British South Africa in which malaria is endemic, or in which outbreaks have occurred from time to time. At the beginning of the year under reference it was hoped to organise a lecturing tour throughout the malarial districts, but this proposal had to be abandoned owing to the heavy cost of transport and the difficulty of finding a lecturer with the necessary qualifications able to give time to the proposed tour. Arrangements have now, however, been made whereby lectures can be given by local medical men—usually district surgeons—this Association lending all the necessary material including lantern slides for illustrating the lectures. By this means lectures have been given at Barberton and at various centres in the Zoutpansberg district by medical men connected with the local Associations at Barberton and Pietersburg. The committee hopes that similar lectures will be given elsewhere during the coming year, and will welcome applications for the use of the

material at its disposal. In this connection the committee has to thank Messrs. Lennon, Ltd., chemists, Johannesburg, for the gift of a magic lantern for the use of the Association. The committee has taken the first step in a very interesting experiment, and one which, if it succeeds, may in course of time prove to be a very valuable weapon in the fight against the malaria-carrying mosquito. Arrangements have been made for an experimental importation of the West Indian larvæ-eating fish, technically called *Girardinus Poecilioides*, but popularly known as "Millions," owing to the rapidity at which they increase in numbers. "Millions" are fish of the top-minnow variety which, when full grown, measure about 1½ inches in length. They feed almost exclusively on mosquito larvæ and similar forms of animal life, and are probably the most active of all the natural enemies of mosquitoes. A useful little brochure accompanying the card and report is "The Anopheline Mosquito; some facts and information for use in schools," and other publications of the society to hand are "Malarial Fever: How it is caused and how it may be prevented," by Major Ronald Ross, and "The Prevention of Malaria in the Northern Transvaal," by Dr. Henry L. Gordon, of Messina. These publications are being distributed throughout South Africa. The Association's advice to all living in a fever district is "It is to your interest to assist in the formation of a branch of this Association in your district. Write to us as to how to form and run a branch association." To all living in the outlying districts, be they engaged in farming, mining, or any other occupation, the subject of malaria is of such vast importance that the association should receive support and co-operation throughout the Sub-Continent. The chairman of the society is Captain C. A. Madge, and the secretary Mr. W. A. J. Cameron, Box 2879, Johannesburg.

Piggs Peak.

The general manager wires, under date the 2nd instant, as follows, viz.: "Sixth level stope additional width exposed behind false footwall fifteen feet. Average of all assays good and had ten dwts. over width forty feet."

DEVELOPMENT RESULTS AT "ECKSTEIN" MINES.

The Past Quarter's Operations—A Full Analysis of Reef Disclosures—Tonnages Blocked Out for the Half-year.

WE have in recent issues reviewed the reports for the three months ended with June 30th last, of the mines under the control of the Central Mining and Investment Corporation, or, as they are more generally spoken of, the "Corner House" mines. In view of the supreme importance of the question of development, and also of the fact that in the Central Mining reports the more readily understood (by the bulk of shareholders) method of expressing the value of reef disclosures, is now stated in shillings and pence instead of in pennyweights, as heretofore, a more explicit analysis of the quarter's development operations is called for. An examination of the statements issued by the twelve important mines of which reports are available shows that the amount of development carried out was, in order of magnitude, as follows:—Crown Mines 12,609 feet, Geldenhuis Deep 7,933 feet, Village Deep 6,114 feet, City Deep 5,075 feet, New Modderfontein 4,621 feet, Bantjes Consolidated 4,071 feet, Durban Roodpoort Deep 4,041 feet, Ferreira Deep 3,633 feet, Rose Deep 3,138 feet, Modder B. 1,439 feet, Robinson 1,226 feet, Village Main Reef 643 feet. The Crown Mines very naturally takes precedence in the amount of development performed, the footage driven, sunk and risen for the quarter amounting to well over two miles. The large amounts of development carried out at the Geldenhuis Deep and, in a lesser degree, at the Village Deep, are also worthy of remark. The Modderfontein B. mines resumed development operations during the quarter ending June last, those carried out in the preceding three months being insignificant, as in the March period only 419 feet were driven, risen and sunk. At the Robinson the footage shows a considerable decrease, and at the Village Main Reef only 643 feet were opened up. At both of these properties no large amount of development work remains to be carried out. An analysis of development operations at each of the twelve mines yields the following interesting facts and figures:—

Crown Mines.—The development carried out, although amounting to the impressive figure of 12,609 feet, was less by 1,859 feet than that of the March quarter, and 4,200 feet below that achieved in the three months ending December. The outstanding development features may be summarised as under:—

	Main Reef.	Leader.	South Reef.
Feet sampled ...	545	3,980	1,977
Reef width ins. ...	36	22	32
Assay value ...	10/11	65/1	54/2

The Main Reef development disclosed unprofitable value. The Main Reef Leader, on an "inch-dwt." or "inch-shilling" basis, shows a lesser value than in the March quarter, but the South Reef development is substantially better. It may be observed that only about one-half of the footage was sampled. During the six months 366,000 tons, of a value of 28s. 6d., were developed—about half a dwt. below the average value of the total reserves.

Geldenhuis Deep.—During the first six months of the year there were developed at this property 111,023 tons, of an average assay value of 27s. 4d. per ton. The revenue for the June quarter, it may be observed, was at the rate of 31s. per ton. In addition, 97,512 tons of "payable" ore which has not yet been fully valued were exposed. Particulars of development were:—

	Main Reef.	Leader.	South Reef.
Feet sampled ...	1,526	2,219	2,053
Reef width ins. ...	16	11	19
Assay value ...	50/0	83/7	58/10

It is particularly gratifying to observe a distinct improvement in the drives on Main Reef Leader and South Reef.

Village Deep.—Here the total footage was 1,200 feet in excess of that for the previous three months, and was as follows:—

	Main Reef Leader.	South Reef.
Feet sampled ...	2,366	1,637
Reef width ins. ...	35	23
Average assay value ...	47/2	53/7

As compared with the previous three months, the South Reef shows up a fraction better, but development values on the Main Reef Leader appear to have fallen away somewhat. The disclosure of distinctly profitable values on the South Reef of recent months is a most gratifying feature. There were fully blocked out and valued 163,881 tons of pay ore of an average value of 28s. 7d.

City Deep.—Development on the South Reef at this property was little, and the values noted unsatisfactory. On the other hand, the Main Reef Leader drives, etc., gave an average of five guineas per ton over 20 inches of reef—a high-grade development record. Actual figures are:—

	Main Reef Leader.	South Reef.
Feet sampled ...	3,470	35
Reef width ins. ...	20	16
Average assay value ...	105/3	24/9

The tonnage of payable fully developed ore for the first half of the year was 88,189 tons, value 47s. per ton. In addition, it is estimated that 170,000 tons of payable ore have been exposed, but not as yet fully developed.

New Modderfontein.—The excellence of developments at this mine during the June quarter constitutes one of the features of the batch of reports. Values on an inch-shilling basis appreciated by nearly twenty-five per cent. Over half a million tons of an average value of 32s. 4d. were developed during the half-year—200,000 tons in excess of the amount mined. Only one ore body—the Main Reef—was developed, and reef exposures were:—Feet sampled 3,177, reef width inches 10, average assay value 225s. 6d.

Bantjes Consolidated.—Five hundred and nine feet more were driven, sunk and risen in this mine than during the previous three months. South Reef values continue promising. Payable values have been exposed on Main Reef Leader in the area between the Central and West shafts on the upper levels. Reef disclosures were:—

	Main Reef Leader.	South Reef.
Feet sampled ...	335	1,765
Reef width inches ...	14	12
Average assay value ...	85/3	92/0

Durban Roodpoort Deep.—At this, the most westerly subsidiary of the group, the value of the Main Reef opened up was about the same as in the March quarter, but values on the South Reef were slightly lower. The total development was 445 feet less than in the previous three months. Reef exposures were:—

	Main Reef Leader.	South Reef.
Feet sampled ...	1,255	1,830
Reef width inches ...	24	10
Average assay value ...	39/11	128/11

Ferreira Deep.—The development footage shows an improvement of 481 feet for the quarter, whilst during the first six months of the year 84,790 tons were fully developed of a value of 39s. 1d. per ton, and in addition, a considerable tonnage has been exposed, and will be included in the ore

reserves when fully developed and valued. Summarised, the particulars as to footage and value, etc., are as follows:

		Main Reef		
		Main Reef.	Leader.	South Reef.
Feet sampled ...	48	1,312		1,305
Reef width inches ...	37	35		20
Average assay value ...	10/1	54/8		113/0

Rose Deep.—The value disclosed on the Main Reef at the Rose Deep showed improvement, and that of the Leader was also good, but the South Reef gave only 552 inch-shillings, which means that it would be unpayable if stopped by itself. Development kept pace with ore depletion. 116,478 tons of payable ore, valued at 28s. 7d. per ton, were added to the reserves during the quarter, in addition to which a further estimated tonnage of 115,500 tons has been exposed, but is not as yet fully developed and valued. Results of driving, etc., are:—

		Main Reef		
		Main Reef.	Leader.	South Reef.
Feet sampled ...	964	967		949
Average reef width ins.	40	13		12
Average value ...	31/7	77/11		46/1

Modder B.—Here the values disclosed by the development during the first two months of the quarter were much lower than the average of the mine, but a substantial improvement took place during the last month of the period. The development footage shows a considerable increase as compared with last quarter, owing to the supply of native labour having become more satisfactory. As at the New

Modderfontein, only one reef—the Main Reef—is developed, and the results were:—Feet sampled 770, reef width inches 10, assay value 112s. 7d.

Robinson.—At the Robinson the development footage for the quarter showed a considerable decrease, and the reef disclosures were lower on account of the incomplete exposures of the reef. The tons developed for the half-year are:

		Tons.	Value.
Main Reef ...	...	29,567	19/ 1
Main Reef Leader ...	...	18,918	30/ 8
South Reef ...	...	7,839	68/ 7
Total ...	...	56,324	29/10

The disclosures were:—

		Main Reef		
		Main Reef.	Leader.	South Reef.
Feet sampled ...	505	295		130
Reef width inches ...	28	35		22
Assay value ...	28/2	44/3		76/2

Village Main Reef.—Development footage is now steadily decreasing owing to the few faces left, only 643 feet being accomplished during the quarter. This exposed but 3,043 tons, the expenditure on development being £1,955. The results, which must be adjudged poor, were:—

		Main Reef Leader.			South Reef.
Feet sampled ...	...	272			224
Reef width inches ...	...	12			8
Assay value ...	...	45/1			81/5

THE TREASURY'S YEAR.

Results of Joint Working with the Jumpers—The Financial Position.

THE working results secured by the Treasury Company during the year ended with March 31st last have to be considered in conjunction with those secured by the adjacent outcrop, the Jumpers, since a working arrangement exists between these two mines. The profit derived by the Treasury Company from the joint working during the twelve months amounted to £5,832, after deducting the administration expenses. It should, however, be borne in mind that this sum does not represent the actual profit earned, as in terms of the working agreement with the Jumpers Gold Mining Company, that concern has to set aside monthly £100 out of its share of profits until the Treasury Company's share of profits amounts to £53,500. If upon the termination of the agreement the Treasury profits have not amounted to £53,500, the sums so set aside by the Jumpers Company will be devoted to make up this deficiency in so far as they go. The sum set aside for this purpose at March 31st, 1912, amounted to £6,800. As the company's share of the profits has been smaller than anticipated, a considerable reduction in administration expenses has been effected.

CONSULTING ENGINEER'S REPORT.

Mr. S. C. Thomson, the company's consulting engineer, reviews the year's work as follows:—The results of the joint operations for the year ended 31st March, 1912, are below expectations. This is due chiefly to the failure of the Jumpers mine to yield its due proportion of tonnage. The total tonnage milled from the mines was 130,335 tons, of which 80,133 tons were obtained from the Treasury, and 40,202 tons from the Jumpers. In addition, 1,395 tons were picked from surface dumps. The shortage of ore from the Jumpers has adversely affected the average grade to mill, since the ore from that section is generally of higher value than that from the Treasury. Also, it has not been possible to make up from the Treasury, to any considerable extent, the shortfall in the other section; and, thus, costs have been

increased. Treatment of accumulated slimes has been profitably continued, and will probably continue for some time further; but the amount still available cannot be reliably estimated. There apparently remains in both mines a considerable tonnage which may be profitably extracted, but the difficulties attending the working of remnants of blocks in caved areas, which exist over practically the whole of both mines, may necessitate the cessation of operations at any time. Up to the present, no considerable tonnage has been abandoned, except on account of low values; and, unless further disappointments are encountered, small profits may be obtained for perhaps a further twelve months. Although the profits accruing to the Treasury from joint operations have been disappointing, it is improbable that better results would have been obtained by separate working.

The financial statement shows that the credit balance brought forward from the previous year was £80,328 12s., and for the current year the balance carried forward amounts to £86,618 17s. 7d.. Mr. Dawe's remarks at the annual meeting, held on Saturday last, will be found elsewhere in this issue.

Roberts Victor Diamonds.

The output for the month of August was as follows:—20,546 loads washed yielded 6,520½ carats.

August Output: Kleinfontein Group—New Kleinfontein Co.

Stamps, 220; days run, 29-271. Tube mills, 4. Tons milled, 50,100. Gold recovered, 17,277-139 fine ounces; net value, £72,688 16s. 7d. Profit, £23,291 15s. 2d. Working costs (including development), 17s. 7-448d. per ton milled; development to working costs, 2s. 1-185d. per ton milled; total working costs, 19s. 8-633d. per ton milled. Capital expenditure, £2,549 3s. 8d.

THE YEAR WITH SWAZILAND TIN, LTD.

Points from Directors', Consulting Engineer's, and Manager's Reports.

The directors' report, to be presented at the seventh annual ordinary general meeting of shareholders of Swaziland Tin, Limited, to be held in the Board Room, the Corner House, Johannesburg, on Friday, 20th September, 1912, shows that the net profit for the year has amounted to £8,710 1s., and this added to the amount of £9,176 7s. 4d., brought forward from last year, or a total of £17,886 8s. 4d., has been dealt with as follows:—Funds transferred, £192; has metal royalty, £233; dividends Nos. 10 and 11 of 10 per cent., £8,200; balance carried forward, £9,260. The working expenditure and revenue account for the year under review was as follows:—

REVENUE.		Revenue per ton shipped.	
228-776 tons shipped realised	£28,388 16 11	£121 1 9-6	
EXPENDITURE.		Cost per ton shipped.	
Mining and sluicing	£10,970 11 7	£47 19 0-8	
Ore concentration	666 10 2	2 18 3-2	
General expenses—			
Mine office	4,516 1 0	19 14 9-6	
Head office	2,024 3 4	8 16 11-4	
Export charges	1,171 3 5	5 2 4-6	
Working costs	£19,348 9 6	£84 11 5-7	
SUMMARY.			
Total revenue	£28,388 16 11	£124 1 9-6	
Total expenditure	19,348 9 6	84 11 5-7	
Working profit	£9,040 7 5	£39 10 3-9	

Owing to the fluctuations in the price of tin, the shipments for the months of March, April, May and June have been taken into the accounts at £180 per ton. The market price on the 28th June, 1912, was £209 per ton.

OPERATIONS OF THE COMPANY.

The valuable suggestions of Mr. F. Douglas Osborne for the working of the property, which were referred to at the last annual meeting, have been carried out by Mr. Day, an engineer thoroughly conversant with hydraulic mining for tin. Owing, however, to the failure of the water supply, these alterations have not yet resulted in the increased output foreshadowed in the statement published last March, and your directors are now considering the advisability of substituting electrically driven gravel pumps for elevators, as the latter consume about 60 per cent. of the water, provided the change can be made at a reasonable cost. The Acting Manager's report, attached hereto, gives full details of the work done during the period under review. During the year the company's share of expenses in working portion of the farm Zaniplaats No. 1328, have amounted to £2,234 9s. 4d., to which must be added the sum of £870 11s. 8d., brought forward from last year, making a total of £3,105 1s. 6d. Against this we have received £2,724 11s. 8d., being our proportion of the proceeds of the tin realised.

THE CONSULTING ENGINEER'S REPORT.

The Consulting Engineer, Mr. J. J. Garrard, writes:—The introduction of hydraulic elevators during the year has undoubtedly been the means of enabling certain low-lying flats to be worked which, under the former system of mining, could not possibly have been dealt with. As, however, these elevators require for their operation over 60 per cent. of the total available water, and, moreover, that portion of the available water which is under the highest pressure, it is evident that, if the water to save is applied instead to the breaking of ground by being used in monitors, the output in the case of workings now using elevators should be increased proportionately so as to amount to not less than two and a half times what it is now. It is consequently proposed to accomplish the work of elevating by means of centrifugal gravel pumps driven by direct coupled motors deriving their power from all generating station

which in turn will derive its power from water which has already done work in breaking ground on the upper portion of the property, and which, after being settled, will be led by means of fluming and pipes to a Pelton water wheel direct coupled to the electric generator, which will supply the necessary power to the proposed gravel pumps. At the same time, this water, after having done its work in generating this power, will again be caught up for use in augmenting the present supply for the lower-lying workings at Stable Creek. In the first instance, it is proposed to install one gravel pump at King's Flat, and two at Mbabane Flats to replace the hydraulic elevators now working at those places. The capital expenditure involved in this proposed installation is estimated approximately at £6,000, and the details of the scheme are now in course of preparation. It is anticipated that the increased gross yield due to the proposed alterations, taken in conjunction with the small increase in working costs involved, should produce an additional profit of £2,000 to £3,000 per month. The falling off in the water supply in the new Mbuluzi water race, due to the abnormally dry season, has had the effect of very materially decreasing the output. This points still more to the importance of utilising the water that is available to the best advantage. A great deal of prospecting work has been carried out by means of an Empire Drill during the year, and it is proposed to continue this work in order to enable an estimate of the profitable ground available for future work to be arrived at, whilst the plotting of values so found on an assay plan enables the Manager to gauge the value of the ground ahead of his workings. It is proposed to base all working costs and values on the more rational basis of the cubic yard as from the commencement of the current financial year.

MANAGER'S REPORT.

The Acting Manager, Mr. T. Kelly, writes:—The rainfall for the year was 44.32 inches as against 50.54 inches for the year ending 30th June, 1911. As we now rely more on hydraulicing and less on hand labour, a decrease in the rainfall is a greater handicap than in the past. The lowering of the Mbabane Flats was not restarted, as it was considered that to lower the bed of the stream sufficiently for proper drainage of the flats would be too costly. Poys Creek and its tributaries are still being worked. Given a normal summer, better results can be expected from this creek. Hand work was carried on at Stable Creek until February, producing 25,074 tons of cassiterite. All labour was then employed on ditch cutting, drains, etc., making ready for the elevator. The elevator, a 12in. Osborne, was started at the end of February, and to the end of June 42,453 cubic yards were treated, from which 35,710 tons of cassiterite were recovered. The average depth of deposit is 154 feet. Five hundred cubic feet of water per minute are required to run this plant. To keep up the supply, I have had to run the head waters of the Mbabane and Mvundilela Creeks amounting to 100 cubic feet per minute on to Stable Creek. Three eight-hour shifts are run on the elevator. Hand labour was stopped at Kings Flats during January, and the elevator was started during the last week of that month. Up to the 30th June, 29,284 cubic yards were treated which produced 17,596 tons of cassiterite. The average depth is 14 feet. The shifts worked are the same as at Stable Creek. The elevator is at work on ground which under the old system of mining could not possibly have been treated. Owing to the dry season, no high pressure water has been available for monitors, all being used on elevators, hence on hard ground, as at Kings Flat, cutting per day has fallen from 350 to 150 cubic yards. 781 cubic yards were treated at Mbabane Flats elevator during the last week of June. So soon as rains set in, work will be continuous under head of 252 feet from Mbuluzi water race. The ground here is a low grade but will improve as we proceed further. Two monitors are at work at Sand's Creek during the day. From March to the end of June 17,491 cubic yards have been treated producing 24,216 tons of cassiterite. Cassiterite work has been carried on here during the year, as at the Sand's Creek. Boys are at work in Bulky, Bulky and Dugway Creeks. Monitors can be used in all these creeks during the wet season.

WATER SCHEMES.

The Mbuluzi water race was completed during 1911, and since its inception it has run £130 7s. 6d. in repairs.

etc. No water was delivered on Kings Flat until January, then barely sufficient to run the elevator. The Western Hills race was started during October and was finished during February. The measuring weir at the intake of the Mbuluzi race registered in July, 1911, 1,600 cubic feet per minute but in May and June, 1912, only 500 cubic feet per minute. The cascade weir, which stream delivers into the Mbuluzi race, near its intake, measured in July, 1911, 300 cubic feet per minute, but only registered 100 cubic feet in May, 1912. I give these figures to show how great has been the decrease in our water supply. This rapid falling off has greatly handicapped our work as we fully expected to get at least 900 cubic feet per minute during the winter, and our elevating plant was erected to deal with not much less than that quantity. As water became weaker, alterations had to be made. A complete change of elevators was effected between Kings and Mbabane Flats and new ditches built and piping laid, in fact all plants had to be rearranged.

CREEK OUTPUTS AND COSTS.

The following list of productions from the different creeks will speak for themselves:—

Creeks.	Tons of Concentrates Produced.	Total Cost of Production.	Cost per Ton.
Kings Flat ...	59-387	£2,829 13 4	£47 12 11-499
Rowley Creek ...	4-791	166 9 10	34 15 0-221
Duncombe Creek...	8-758	301 7 9	34 8 3-077
Sanders Creek ...	55-880	1,263 19 7	22 12 4-686
Bailey Creek ...	17-415	784 7 8	45 0 9-761
Ryan Creek ...	4-73	29 7 10	62 2 9-319
Mbabane Flats ...	5-969	559 8 9	93 14 5-717
Stable Creek ...	88-845	2,877 15 11	34 6 5-473
Foys Creek ...	44-142	1,898 14 0	43 0 3-229
Lowering Mbabane Falls, surveying, not included in the above ...		259 6 11	

Totals & Average 280-660 £10,970 11 7 £39 11 9-240

GENERAL.

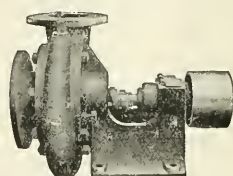
We have reduced the number of boys employed from 665 to about 300 as under the new system of work fewer boys are required. Cattle: The herd numbers 147, all in good condition. Three well-bred bulls have been purchased and

New Modderfontein.

The report for the three months' operations ended the 30th of June issued by the New Modderfontein Co. embodies the interim balance sheet, working expenditure and revenue account and appropriation account (subject to audit). The interim (abridged) balance sheet shows on the credit side for sundry assets—shares, stores, sundry debtors, and payments in advance, etc., £78,060, and cash at bankers and value of gold in transit, £458,366. On the liabilities side sundry creditors on account of loans, dividends, stores, wages, Government tax, etc., amount to £255,941, and the balance of appropriation account is £75,869. Working expenditure and revenue received from gold, £263,207, out of which the total working expenditure is £139,263, or 20s. 10d. per ton milled, which left a working profit for the quarter of £123,944, or 18s. 7d. per ton. The profit on treatment of accumulated slimes amounted to £341, and sundry revenue £4,610, making together a total of £129,389 carried to appropriation account. The balance brought to appropriation account at the 30th of June, 1911, was £9,133; the balance of working expenditure and revenue account for the nine months ended the 31st of March was £348,272, and now for June £129,398, making a total of £486,863. The charges against this total are: Government tax (estimated), twelve months, £13,153; expended on capital account, £17,781; dividend account declared in December and June, £350,000, and the balance, £75,869, carried to the interim balance, as stated above. On development work 4,621ft. were driven, risen, and sunk, exclusive of stopes. The reef disclosures were as follows: Main reef: Distance exposed, 3,177ft.; width, 10in.; assay value, 225s. 6d. The tonnage crushed

CENTRIFUGAL PUMPS.

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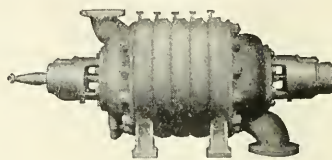


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are expected to arrive here in August. Eight trained oxen were purchased for the purpose of dam building, ploughing, etc., and for tree planting, and are now at work. Now that electrically-driven pumps are to replace the elevators, the working efficiency will be doubled and we shall be less dependent upon the rainfall and shall have available for monitors the high-pressure water now used on the elevators.

during the three months was 133,470 tons, from which 62,704ozs. of gold were obtained, the total yield per ton being 39s. 6d. From 6,445 tons of accumulated slimes treated 456ozs. were won. The circular shaft was sunk a further 347 feet, making its total depth 1,529 feet from the surface. No. 2 vertical shaft was sunk 113 feet, making its total depth below collar 1,673 feet. No. 12 incline shaft was sunk 464 feet, making its total depth 2,889 feet on the dip from the surface. The tonnage milled was below the average, due to the mine being badly in need of more native labour, but owing to the increased recovery, the working profit for the quarter shows a substantial increase as compared with the last period. The erection of the hoist at No. 2 shaft is now nearing completion, and it is expected to bring it into operation during August. Plans have been approved for the construction of an ore bin at No. 2 headgear, and the work in connection with this will be started without delay. The increase in the yield is due to the better grade of ore to mill. The payable ore returned as developed, for the six months ended 30th June, amounted to 504,258 tons, a value of 32s. 4d. per ton. Capital expenditure on circular shaft sinking, new construction, etc., for the quarter has amounted to £38,101; less cost of air compressors charged to the Rand Mines Power Supply Co., Ltd., in terms of agreement, £34,501; leaving a net expenditure of £3,600. Owing to the extensive development of the mine, the stopping operations are spread over an area capable of yielding a tonnage considerably in excess of the requirements of the reduction plant. In order to work under the most economical conditions and to make the utmost use of the labour available, it has been considered desirable gradually to concentrate underground work in the eastern section of the property which is best suited thereto. As this section has a higher grade than the average of the mine an improvement in the profits can be expected in the course of a few months.

OIL IN SOUTH AFRICA.

Proposed Investigation in the Ceres and Mossel Bay Districts—Gas and Irrescent Films as Indications—The Union Trade in Oil and By-Products.

"For many years past," says the *Argus*, "there have been rumours of indications of oil having been discovered in the western and south-western districts of the Cape, and from time to time small syndicates have been formed to exploit the areas which were regarded as promising, but without result. Now, we understand, an effort on a far more ambitious scale is to be entered upon. By the Edinburgh Castle, which arrived from England on the 3rd inst., Mr. W. W. McAlister, of the firm of W. W. McAlister & Co., incorporated accountants, London, arrived, and in the course of a conversation stated that he had come out as representative of a large syndicate which had reason to believe that oil was to be found in certain districts. The syndicate had plenty of capital, and his mission was to arrange certain business details at this end, after which expert geologists would be sent to examine the ground and to decide where bores should be put down. The syndicate have obtained rights amounting in all to about 200,000 acres in the Ceres and Mossel Bay districts, from whence good reports have been obtained. Of course, Mr. McAlister does not assert that oil is present in these districts, or that the syndicate is bound to find oil. What he states is that those whom he represents have reason to believe their enterprise will be successful. They have had promising reports, and they are prepared to sink a good deal of capital in the enterprise."

EARLY INVESTIGATIONS.

The first attempts to obtain satisfactory evidence of oil in the districts referred to in this announcement were made, if memory serves us well, some fifteen years ago or more in the vicinity of Ceres. Here a peculiar oily-looking, or, to be more correct, an iridescent film, has long since been observed to form on pools of water in the vicinity of the village of Ceres, and although Government analysts in Cape-town have declared the filmy substance to be an iron compound, those interested in the economic aspect of the affair have always maintained that it is an indication of oil. Analyses of the water upon which these films appear are said to have confirmed the view, but the analytical data of the investigation do not seem to have been of an altogether conclusive kind, either on one side or another of the argument. In the earlier days of the history of the "oil" ventures a borehole was put down upon the side of a stream near Ceres, and gas is reported to have been tapped at no great depth. As a matter of fact, it is recorded that an outburst of gas happened to become fired, with the result that the boring plant was practically destroyed. This is the reason given for the cessation of operations at that point, and no exploratory work of any importance, as far as we have heard, was subsequently taken in hand. The options got into the hands of a Kimberley syndicate, who also held options over a similar kind of country, west of Mossel Bay, near Herbertsdale and the Gouritz River. The same filmy phenomena that appear near Ceres are found in the Mossel Bay district, and have been observed on the surface of the sea-water at Mossel Bay itself. Gas also is said to have been known of in this district for many years. In the bed of the Gouritz River, moreover, thin seams of bituminous matter are reported to occur between the bedding planes of the shales, or slates. A circumstance which is considered of some importance by those who have faith in the existence of oil in the Ceres and Mossel Bay districts is the presence there of a considerable extent of Bokkeveld beds. The feature of the Bokkeveld beds which makes them so remarkable, as Professor E. H. L. Schwarz points out in his "South African Geology," is the presence of a large number of marine fossils, exactly similar to those found in the lower Devonian (lower Helderberg) of New York and Western Ontario, and also in the Falkland Islands, Bolivia, and Brazil. The lower shales of the series, having a thickness in the aggregate of probably four or five hundred feet are richly

fossiliferous and are separated by sandstones and overlain by sandstones, shales and mudstones. The association of important oil resources in other parts of the world with strata of this kind led to the forming of the organic theory of oil production, and, if, as is admitted by many competent persons, the theory is a sound one, and accounts for at least some of the existing oil phenomena and occurrences, the interest of those who hold this view in regard to the Ceres and Mossel Bay indications is easily understood. Not long before the war, Sir Boyerton Redwood was induced to look into the question of oil in the Ceres district, and sent out a Mr. Dalton to report upon the prospects. It was said at the time that Mr. Dalton's report was of a somewhat inconclusive, though not unfavourable, kind. At any rate, nothing further seems to have been done, and the present revival of interest is probably the first time that steps of any real importance have been taken to test the truth of the various statements and views which have been expressed regarding the alleged occurrences.

OIL SHALE.

While events of importance are afoot in the Cape Province in connection with oil undertakings, it is satisfactory to learn that the Transvaal Oil Shale Syndicate, Ltd., the report of whose first statutory meeting in London was published in our last issue, have been able to take quite a sanguine view of their prospects in the Ermelo district. The results of an analysis of the shale by Dr. Norman, of the City Central Laboratory, are worthy of note. They are:—An average of 30.1 gallons of oil per ton, giving distillation products as follows: Petroleum spirit 5 per cent., kerosene oils 36 per cent., lubricating oils 38 per cent., and pitch 21 per cent. An investigation of the crude oil for paraffin wax gave 6 lbs. 13 ozs. per ton of shale. The possible yield of sulphate of ammonia was ascertained to be very high, amounting to 64 lbs. 15 ozs. per ton of shale. The flash point of the burning oil was 119 degrees Fahr., and the combined sulphur being small in quantity, was considered to be capable of easy elimination. These analyses were of samples, of course, but it is authoritatively stated that the supply of oil shale of good quality in the Ermelo district is in areas of sufficient size to be profitably worked on a fairly large scale. The future of the shale oil industry in this country depends, of course, upon the local market, and in this respect the chairman of the Syndicate, Mr. Alfred Thomas Maceo, remarked: "As a pioneer company we have, of course, great difficulties in front of us, and our directors do not seek in any way to minimise those difficulties, but we have also the great advantage that our products are badly wanted in the Transvaal and South Africa. We have, then, an ideal market, while, so far as I am aware, we do not run up against any possible competitor. For example, for sulphate of ammonia, in which our shale is so rich, there should be an unlimited market. It is a product which should be of the greatest importance to the agricultural development of the country, which the Union Government is doing so much to foster." In this connection it may be pointed out that during the seven months ended July 31st last, there were imported into the Union lubricating oils to the value of £80,779, mineral oils (not paraffin) to the value of £35,631, and paraffin to the value of £177,187, a total of £292,597. Tar and pitch to the extent of £14,127 was also imported, and paraffin wax and stearine to the value of £107,717. If products of this kind, amounting in value to over £100,000, are handled in little more than half a year, it is clear that the field for establishing local works and manufactories in the country where the raw materials are available is a particularly promising one. The question of working cost is naturally an all-important matter, but more important than all appears to be the inaugurating of ventures of this kind on a sound basis of ample working capital.

THE GERMAN S.W. DIAMOND FIELDS.

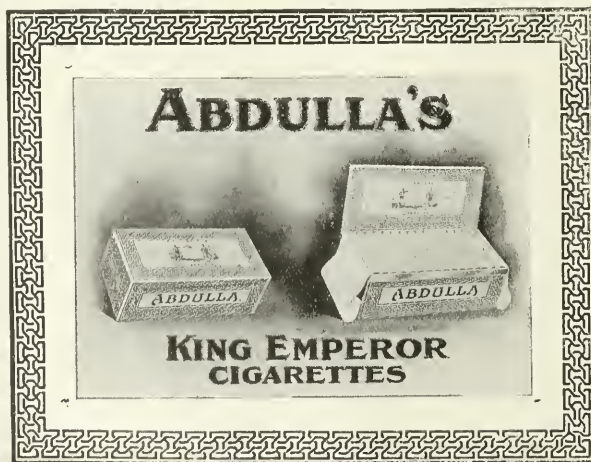
British Consul's Report Reviews History, Progress and Conditions.

An interesting account of the diamond field at Luderitz Bay is embodied in a report by Mr. Consul E. Müller on the trade of German South-West Africa for 1911, just to hand. The origin of the German South-West African diamonds is still shrouded in mystery. There seems to be little doubt that they originated in a "pipe," or "pipes," and that their present distribution is due to the action of wind and water. A trace of the Kimberley formation in the Pomona territory, where the larger diamonds are found, would point to the presence of a pipe there. It remains to be seen whether such a pipe will be discovered, or whether it has been emptied of its contents. Further inland there are a number of blind pipes, in which no diamonds have been found to date. The diamonds were discovered in 1908. In that year 39,375 carats, valued at 51,180 marks, were exported. In 1909 the exports were 483,268 carats, valued at 15,435,522 marks. In 1910 the exports were 867,296 carats, valued at 26,860,074 marks. In 1911 the output was approximately 753,300 carats, valued at 23,200,000 marks. For practical purposes, the diamond fields must be divided into two areas—the fields south of the 26th degree and those north of the 26th degree. The most valuable fields are those south of the 26th degree. After a certain amount of free prospecting had taken place, the Imperial Government reserved this area in favour of the German Colonial Company and its offshoot, the German Diamond Company, which was formed to exploit the diamond rights of the parent company. The Sperr Gebiet was closed to outside prospecting until March 31st, 1911. The German Diamond Company prospected actively in order to peg off as many claims as possible before March 31st, 1911. After that date all minerals discovered in the Sperr Gebiet belong to the Government, and will be exploited by a company floated specially for the purpose. In this company the German Diamond Company and the Government will be interested in equal shares. No new discoveries of any importance have been made hitherto. The diminished output for 1911 is due to several causes. First of all, the shortage of labour. Secondly, the weeding-out process, which had begun in 1910, was continued until all the smaller companies suspended operations. At present the only producers are the Colonial Mining Company, the German Diamond Company, the United Diamond Mining Company, and the Colmanskop Diamond Mining Company, Limited. The gradual increase in the working costs, combined with the high scale of taxation and royalties, which varied according to circumstances from 46½ to 50 11-12 per cent. of the gross value of the output, led to the exploitation of the richer patches, while the poorer patches were left over to be worked when altered taxation made this possible. News has just been received that it has been definitely decided to alter the taxation to a tax on the net proceeds, with a percentage basis, which will vary with the working costs. It is also stated that the charge made by the Diamond Regie, which was formed by the Government to control the sale of the stones, will be reduced from the 5 per cent. on the gross value to 2 per cent. gross.

THE POMONA FIELD.

The output for 1912 will be favourably affected by the exploitation of the Pomona area, which has been allowed to lie idle pending a settlement of the dispute as to the ownership of the diamond rights.

Messrs. De Pass Spence and Co. acquired the Pomona mine and the territory in its neighbourhood from the Hottentots. Herr Luederitz, whose rights were purchased by the German Colonial Company, claimed that he had bought the whole country over the heads of De Pass Spence and Co. An Anglo-German Commission inquired into the validity of the claims and awarded the Pomona mine, plus a two-mile radius round the workings to De Pass and Co. Subsequently other litigants appeared, but eventually a spirit of compromise prevailed, and news has been received from Berlin that everything is now in train for the granting of special rights to a new company, which is to be floated, and in which the litigants all receive a share. . . . The share of the Pomona Mining Company will be 73½ per cent. The prospectors who pegged off claims receive 16½ per cent., and the German Diamond Company 10 per cent. Mr. de Pass receives a royalty of 8 per cent. of the gross value of diamonds produced. The gradual exhaustion of the rich areas has compelled the various companies to employ machinery for dealing with the diamond-bearing gravel. The Colmanskop, Limited, and the German Diamond Company have both set up Schuebel plants. The United Diamond Mining Company has erected a large plant, which will soon start operations. It is specially designed to deal with gravel overlaid by large masses of drift sand. The Colonial Mining Company has evolved a comprehensive scheme for dealing with its large areas of surface gravel. The scheme is the outcome of exhaustive prospecting and calculations based on carefully considered data. From Kolmanskuppe a narrow-gauge line, seventeen miles in length, runs through the centre of the property to Elizabeth Bay. This has solved the question of transport. At Elizabeth Bay a pumping station for pumping sea water through 4in. pipes to Kolmanskuppe and some six miles further to the Colmanskop fields supplies the water for the diamond-washing machines. The company has erected an electric power station in Luederitzbucht, which at present supplies the town with electricity. The building has been built on a larger scale than is necessary for immediate requirements, in order that the plant may be added to if necessary. The electric current is generated by two 600 h.p. suction gas motors, which obtain their gas from imported anthracite coal. It is estimated that 30,000 volts will be transmissible to the company's transformer in Kolmanskuppe, which is some 13 kiloms. distant in an easterly direction. Here a large washing plant, to be worked by electricity, situated in the centre of the northern portion of the company's holding, will shortly be erected, capable of dealing with 1,500 cubic metres of gravel per day of twenty-four hours. All the washing and sorting will be carried on in one large building; this will reduce the staff and make it more difficult for the illicit diamond buyers to carry on their trade. This plant will probably be in going order by the end of 1912. Early in 1913 a similar plant will be erected on the Government claims which run parallel to the Colonial Mining Company's property. This central station will be some five miles from the station first erected, will be worked by electricity, and will deal with 750 cubic metres of gravel per diem. The current will thereafter be led to Elizabeth Bay and used in pumping.



UNIFORMITY IN GRADING ANALYSES.

The Screens Adopted by the I.M.M.—Proposed Mathematical Grading of Screens—The Desirability of a Commonly-Accepted Standard.

[By H. STADLER.]

AFTER full and careful consideration and after ascertaining the views of kindred societies and of a large number of members and other authorities in various parts of the world, the Institution of Mining and Metallurgy adopted in November, 1907, a series of especially manufactured standard laboratory screens for the purpose of bringing about unification in the measurements of screen products. The Institution of Mining and Metallurgy series does not pretend to any particular and limited mathematical seriation with regard to the stepping of screens, and as no limitation is made in the number of screens, each investigator is left with a free hand to choose those which are best suited for his special needs. The Institution of Mining and Metallurgy intended to introduce a uniform instrument of measurement of the greatest accuracy obtainable in practical manufacture, so as to get accurate comparisons of gradings made anywhere in the world. In order to meet all the metallurgical requirements it was necessary to put a rather large number of screens at the disposal of the metallurgists, but as in ordinary practice only a comparatively small number of screens is required it is suggested, with a view to securing still greater uniformity, that engineers and metallurgists in making their choice should preferably adopt the screens as specified in the annexed table. The selection of the screens of the recommended restricted set has been made in such a way that the apertures are in agreement with, or very close to, those of the mathematically correct reduction scale, so that the series of the products of these screens will show a regular reduction in volume—or weight—of 1:4 from grade to grade. After much painstaking, hard and tedious work, and at considerable expense the Institution of Mining and Metallurgy succeeded in putting on the market a series of laboratory screens by which all metallurgical requirements are served with great satisfaction. But as the full utility of grading unification is only realised by the general adoption of these standards, it is hoped that all members of the Institution and other professional men will use them in reports, scientific papers, and other publications. This is especially expected from those who in justifiable pride add the initials of the Institution as a qualification to their names.

STANDARD GRADES AND SCREENS FOR GRADING ANALYSES.

(See H. Stadler, "Grading Analyses and their Application," Transactions I.M.M., 19th Session, 1909-1910, and *Journal Ch. M. and M. Soc.*, May, 1910.)

Mathematically Correct Scale. Reduction Ratio 1:4.			Instrument of Measurement. Nearest I.M.M. Commercial Standard Laboratory Hand Sieve.		
Ord. No. Mech. Val.	Mesh Aperture.		Mesh p. lin. in.	Mesh Aperture.	Mesh Aperture Approximate
	in.	m/m	No.	in.	m/m
EU.					
0	1.0	25.4	—	—	1 in.
1	—	—	—	—	—
2	0.630	16.0	—	—	2 in.
3	—	—	—	—	—
4	0.3969	10.080	—	—	3 in.
5	—	—	—	—	—
6	0.250	6.35	—	—	4 in.
7	—	—	—	—	—
8	0.1575	4.0003	—	—	2 5/16
9	—	—	—	—	—

10	0.09922	2.52	5	0.10	2.540
11	—	—	—	—	—
12	0.06250	1.5871	8	0.062	1.571
13	—	—	—	—	—
14	0.03937	1.0	12	0.0116	1.056
15	—	—	—	—	—
16	0.0248	0.630	20	0.025	0.635
17	—	—	—	—	—
18	0.01562	0.3968	30	0.0166	0.121
19	—	—	—	—	—
20	0.00984	0.250	*50	0.01	0.251
21	—	—	—	—	—
22	0.00620	0.1575	†80	0.0062	0.157
23	—	—	—	—	—
24	0.00391	0.0992	120	0.0042	0.107
25	—	—	—	—	—
26	0.00246	0.0625	200	0.0025	0.063
27	—	—	—	—	—
28	0.00155	0.0394	—	—	—
29	—	—	—	—	—
30	0.00098	0.0248	—	—	—

* On the Rand called (60).

† On the Rand called (90).

The diameter of wire of the Institution of Mining and Metallurgy standards is equal to, or very closely approaching, that of the clear mesh aperture. The area of discharge is therefore with 25 per cent. fairly constant for all screens. The 50 and 80 I.M.M. mesh have the same mesh apertures as the 60 and 90 mesh screens respectively, already in common use on the Rand. As the difficulties attending the manufacture of the 200 I.M.M. mesh have not yet been overcome, and as the commercial so-called 200 mesh screens are very unreliable, and in fact not much finer than the 120 I.M.M. mesh, it is more advisable to drop for the time being the 200 mesh altogether and to rely on elutriation for the classification of grades beyond the 120 I.M.M., which with an aperture of .0012 in. marks actually the limit of accuracy for screen measurements. When screens are described simply by the number of meshes per lin. it will be understood that the I.M.M. standard is referred to. In reporting grading tests it is desirable to state whether wet or dry screening has been employed.

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THE BRAKPAN GOVERNMENT LEASE: SCHEME RECALLED.

Essential Clauses Reviewed—A Company's Prospects—How East Rand Centrals are Affected.

EAST Rand Centrals have lately come into prominence for owning portion of the area referred to in the Government notice of just two years ago calling for tenders for the lease of the mineral rights of a portion of the farm Brakpan No. 16, Boksburg district, conjointly with the mineral rights of the farm Schapenrust No. 13, Boksburg district, under Section forty-six of Act No. 35 of 1908 of the Transvaal. The notice stated that every application should be in writing, and in the hands of the Secretary to the Mining Leases Board, Winchester House, Johannesburg, not later than noon on the 13th day of January, 1911. The application had to state whether the applicant proposed: (a) To form a company to work the lease ground separately; or (b) to form a company to work the ground conjointly with adjoining ground; or (c) to form a company to hereafter amalgamate with any other company holding adjoining ground; or (d) to form a new company, but to amalgamate immediately with adjoining ground. The applicant had to give full particulars and details of his proposals in each case. It was further stipulated that the lease should contain the provisions, in so far as they were applicable, which were set forth in the Government lease of the Modderfontein ground of January 27th last, and should, of course, be subject to the provisions of the Precious and Base Metals Act of 1908. It was estimated that, provided no unforeseen difficulties arose, and the ground was worked as an entirely independent proposition, a sum of at least £650,000 would be required for shaft sinking and preliminary development, and a further sum of about £550,000 for bringing the property to the full producing stage. Together with the tender, full details of the scheme of exploitation and milling programme intended by the tenderer had to be provided, with all the accompanying estimates and financial proposals. Each application had to be accompanied by a bank guarantee to the extent of £65,000, which amount was payable to the Government on demand until the registration of the company, and should be forfeited if the successful applicant failed to form and register a company in the Transvaal within two months after acceptance of the application, or within such further period as might be permitted. The company had to be provided with at least the cash capital needed for shaft sinking and preliminary development, and should thereafter, when required by the Minister of Mines, furnish the additional cash capital necessary to bring the venture to the full producing stage. The owners of the mineral rights on Schapenrust should have the right and should be bound to subscribe at par for 50,000 of the shares in such company. At least £150,000 had to be offered for subscription to persons resident in the Union of South Africa, but no person might apply for less than 10 or for more than 200 shares. The rules and conditions under which applications for shares were invited and the allotment thereof made was as directed by the Minister of Mines. No vendors, promoters or founders' shares were created, and no underwriting or other commission allowed. No shares were to be issued at less than par, and, in providing the capital required for shaft sinking and preliminary development, all shares were to be issued at the same price.

In the event of an amalgamation with adjoining ground, the conditions as to a £65,000 guarantee remained the same, and in respect of the additional capital required no vendors, promoters or founders' shares could be created, and no underwriting or other commission were allowed, except such as the Minister might permit. The applicant should state what promotion, if any, of such additional capital he was prepared to offer to the public for subscription and on what terms, in accordance with the intention of the paragraph given above in this connection. The tender was based on the lines of the Modderfontein lease, in which the profit due to the Government runs upon a sliding scale and bore the same ratio to the net profit as the latter bears to value of the precious metals produced, the amount payable being in no

case less than 10 per cent. nor more than 50 per cent. of such net profit. In addition to this, a percentage of the Government dues, calculated according to some sliding scale, was expected, and it was upon the inducement contained in this latter voluntary offer that the success of the respective tenders, no doubt, very largely depended. As was shown in a criticism of the Modderfontein leases as granted to the Barnato group, it was possible for the Government to obtain as much as 60 per cent. of the company's profits. The additional tax offered by the firm was, it may be remembered: (a) $7\frac{1}{2}$ per cent. of the tax payable under the sliding scale, if such tax does not exceed 20 per cent. of the net produce; (b) 10 per cent. of the tax payable under the sliding scale, if such tax exceeds 20 per cent., but does not exceed $33\frac{1}{3}$ per cent. of the net produce; (c) $17\frac{1}{2}$ per cent. of the tax payable under the sliding scale, if such tax exceeds $33\frac{1}{3}$ per cent., but does not exceed 49 per cent. of the net produce; (d) $22\frac{1}{2}$ per cent. of the tax payable under the sliding scale, if such tax exceeds 49 per cent. of the net produce.

THE PROSPECTS OF A COMPANY.

With regard to the prospects of a company, formed on the above basis, it is interesting to recall the statements of the chairman at the extraordinary general meeting of shareholders of the East Rand Central on the 19th August, 1910. This company was putting in the 4249 claims on Schapenrust, or about 19 per cent. of the whole area offered to open tender, and in estimating the probable gold recovery and working costs in the case of the joint area Mr. M. Dodd said:—"This can only be arrived at by an examination of the figures published by the nearest working mines, which are: New Modderfontein, New Kleinfontein, Van Ryn, and Geduld. At these mines the average recovery is 28s. per ton, and average working costs, leaving out Geduld, as only a small portion of its plant is yet erected, 15s. per ton. In face of these figures, and keeping in mind the fact that the size of the joint area is such as to call for a reduction plant of very large dimensions, the following estimates appear sufficiently conservative, viz.: (1) The area should yield a recovery of 24s. per ton; (2) working costs should not exceed 15s. per ton; (3) the reduction plant must be capable of treating not less than 1,000,000 tons per annum." With regard to the prospects of the company obtaining the lease of the joint area, he added: "It is first necessary to point out that when the figures of recovery and cost are those of the above estimate, the terms offered by the successful tenderers in the case of Modderfontein showed an increment of $17\frac{1}{2}$ per cent. on the Government minimum. The capital of a company to be formed must amount to £1,250,000. The earnings of the company, therefore, on the basis of the estimates set forth, would be: A profit of 9s. per ton on a recovery of 24s. per ton means a rent to the Government, as a minimum, of nine twenty-fourths of the profits earned, or $37\frac{1}{2}$ per cent. This increased by $17\frac{1}{2}$ per cent., the Modderfontein increment in such case, is brought to 11.06 per cent. as the Government's share, leaving 55.91 per cent. as the share of the company. A profit of 9s. per ton on 1,000,000 tons amounts to £150,000; Government's share, 11.06 per cent., is £198,270; company's share, 55.91 per cent., is £251,730. The shareholders, therefore, should obtain slightly more than 20 per cent. on their investment."

E. J. MOYNIHAN,

CONSULTING ENGINEER.

PLANS, SPECIFICATIONS, REPORTS AND ADVICE, MINING EQUIPMENT, STRUCTURAL WORK AND FINANCIAL ADVICE.

10, ANGLO-AUSTRIAN BUILDINGS.

Box 2081.

Rhodesian Section.

LATEST MINING NEWS.

The Outlook in the Tati Concessions—Distribution of Native Labour—The Lonely's Quarter—Globe and Phoenix Developments—Forbes Rhodesia Syndicate Properties—The Chamber and Mining Regulations—The Union Minière.

IN the course of a circular to shareholders, the directors of the Tati Concessions state that prospectors have for the last few months been steadily arriving in the territory, and good finds of gold, copper, and other minerals are from time to time reported, "but it is too early to speak, concerning their extent and value, with any confidence." The circular proceeds:—Arrangements are proceeding with responsible parties for the immediate development of the Monarch mine, and it is expected that they will be shortly completed. The Durham Prospect Gold Mines, Ltd., are now in possession of the New Zealand mine, and owing to favourable developments there, crushing mill, it is anticipated, be commenced in October, after which monthly returns will be published. The Arab and Giraffe claims have been let on tribute. On the Somerset mine, from which good results have been obtained, development work is being pushed ahead. Development is also proceeding on the Charlie mine. The Gloucester, Magdalen, and Dollar Princess blocks of claims, and the Austria, Homeward Bound, and Piatria reefs have been registered, and development work is in progress. Several other reefs and blocks of claims have been pegged. The Penhalonga reef has been registered. The reports regarding this reef are that it is large and strong, the ore being principally lead, and the recent assays show a high percentage of this metal carrying anything from 50 to 800 ozs. of silver to the ton.

In their report for July, the Executive Committee of the Chamber of Mines of Southern Rhodesia state the following is a summary of the returns of native labourers employed on Southern Rhodesian mines at the end of the months of May and June, 1912:—

	May.	June.
Local	15,964	15,574
Portuguese territory	6,957	6,435
N.W. Rhodesia	3,807	3,549
N.E. Rhodesia	5,072	5,399
Nyasaland	5,366	5,373
Other sources	1,060	1,065
	38,226	37,395

The number of natives employed in June shows a decrease of 6,006 when compared with the corresponding month of 1911. The distribution during the months of April and May was as follows:—

	April.	May.
Producing gold mines	23,342	23,276
Non-producing gold mines	13,279	13,882
Coal and other mines	1,124	1,068
	37,745	38,226

The following is an official summary of the consulting engineer's quarterly report to June 30 of work done at the Lonely mine: Development work 1,206 feet, tonnage developed 13,230, making a total of ore in sight 153,975 tons calculated over average width of reef, plus 12 inches waste rock; average value ore reserves, 1 oz. 3.26 dwts. Total estimated profit in sight £547,899, made up of profit on ore reserves £516,170, profit on treating accumulated tailings, £31,721. Mill ran 76.06 days, crushed 8,893 tons, gross yield 8,336 ozs. Accumulated slimes—Tons treated 1,602, yielding 638 ozs. Total output 8,974 ozs. fine gold, equal to 1 oz. 4 grs. per ton.

The following are the official details of the development work on the Globe and Phoenix mine for July: Note.—The actual widths of the reefs and the actual assay values are given, except where the width of the reef is below 30 inches. In these cases, as a minimum width of 30 inches of rock must be removed for stoping, the value is given as the average value for the whole 30 inches width, e.g., if a 10-inch reef assayed 36 dwts., the average value over the stoping width of 30 inches would be 12 dwts., and would be so stated.—12th level N. drive north prospecting, has advanced 16 ft., average width of reef nil, value nil. 12th level S. drive south, has advanced 55 ft., average width of reef 19 ins., average value over 30 ins. 5 dwts. 15th level drive north from No. 2a winze, has advanced 84 ft.; average width of reef 12 ins., average value over 30 ins. 1 dwts. 18th level drive south from No. 2a winze, h.w. leader, has advanced 11 ft., average width of reef 3 ins., average value over 30 ins. 20 dwts. 18th level drive south from No. 1a winze East Portion, has advanced 70 ft., average width of reef 13 ins., average value over 30 ins. 22 dwts. 18th level No. 2a winze, East Portion North, has advanced 29 ft., average width of reef 37 ins., average value 162 dwts. 18th level No. 2 winze north, West Portion, has advanced 37 ft., average width of reef 19 ins., average value over 30 ins. 62 dwts. 19th level north footwall or west reef, has advanced 89 ft., average width of reef 6 ins., average value over 30 ins. 2 dwts. 19th level No. 1 raise north (West Portion), has advanced 20 ft., average width of reef 3 ins., average value over 30 ins. 5 dwts. Cross-cutting for month, 105 feet. New vertical shaft has been sunk a total depth of 83 feet.

Presiding at the annual meeting of the Forbes Rhodesia Syndicate, held in London the other day, Mr. George Forbes, the chairman, made some interesting remarks regarding the various properties of this Syndicate. The lease of the Shiba Bongola property, he said, had been extended to 1917. The development footage during 1911 amounted to 553 ft., as compared with 232 ft. for 1910. The main shaft was sunk a further 63 ft., giving a total depth of 268 ft. On the Bongola claims the east adit had been driven 200 ft., and some very rich patches have been encountered. A parallel reef has been located to the north of the main reef and a shaft sunk 50 ft. The ore reserves at December 31 last were 1,640 tons, and during the year under review 1,125 tons of ore were stoped. With reference to the Redrup's Kop claims, the full width of the reef was not exposed in the adit, which had been advanced to 590 ft., and a total of 100 ft. of cross-cutting had proved that the gold was contained in about 5 ft. of reef on the footwall of the main body. The reduction plant was practically completed, and the managing director anticipated being able to commence operations early next month. There are about 25,000 tons of ore developed, of an assay value of 8 dwts., or, taking the total reef and the estimated recovery, about 30,000 tons of 22s. per ton, this latter figure being conservative. The grade might be slightly higher, some higher-grade ore having been encountered in the stopes. Owing to the state of the markets generally, it has not yet been found possible to find a separate company to work this property, as had been originally intended. The chairman also referred to the I.N.L. and St. David's claims, and regarding the latter said that no further work had been done during the past year, but a trial lot of 200 tons was put through the I.N.L. mill, and from the 24 ozs. of fine

gold were recovered. The reef itself was very large, and should return satisfactory profits when worked on a large scale. Further experiments were being undertaken with a view of arriving at the best method of extracting the gold. With regard to the Anchor claims in the Beumbesi district, a further option had been obtained to September 10 next. The objective at present was to prove the reef below the water level and in more settled country. There was reason to believe it is a small payable mine. The company had taken on tribute the Blanket Reef, in the Gwanda district, and some prospecting was being done on the Trent claims, a small property near Redrup's Kop. No defined reefs had been discovered, but there were several small reefs on the claims, some averaging very high.

* * * *

The Committee of the Chamber of Mines have addressed the British South Africa Company with reference to the

The Small Man and Capital.

We take the following generous appreciation of our own small efforts on behalf of the "small man" from the "Pilgrims and Sabie News":—

The mining men of this district will view with satisfaction the growing acknowledgment that the small man does not get his fair share of the good things of the mining world, but is surely if slowly coming into his own. It takes only a cursory glance at the press of to-day to realise this. Those in authority are beginning to see that though large companies are splendid in their way there are numbers of properties quite unsuitable to development by such companies but are capable of steady outputs under the operations of small syndicates or individual owners. This factor acknowledged it is only a step to providing ways and means and helping the small owners, when help is needed, with the capital necessary for him to develop his claims and also to remove restrictions that at present burden him from progressing towards success. In a recent issue we tabulated some of the ways in which the small man is hindered in attaining his goal, so that we will not go into these matters now, though they are of great importance, will need bringing up from time to time if success is to meet our efforts to obtain the best working laws for the proprietor and small owner. There is, however, the difficulty with many men of providing sufficient working capital. This may be forthcoming for a time and then development having absorbed it all the man has to sacrifice a major portion of his assets or go under. It is usually not difficult to raise capital if a proposition is promising, but it is another thing to get such capital at a fair rate of interest, and often it means a big sacrifice. Now this should not be. The farmer in this country has his Land Bank to go to and the Government helps in many ways, but the miner has no such facilities. True, there is not the same security to offer as the farmer has and the Government Mines' Bank might find itself shouldered with some bad debts, but surely this is no argument against its formation, for, if care and discretion were used in advancing loans, this would be minimised and the amount of money spent by the Union Government is very low in comparison to that of other countries. In fact the small amount of £10,000 voted by Government for direct financial assistance to small mines has been reduced to £5,000 this year. Surely out of the large revenue accruing from the mining industry a much larger sum could be voted for its development. The lessening of the grant is a retrogressive step to be deplored, though it has done some good in drawing the attention of the Press to this important matter. It is a great pity that the two local Claimholders' Associations are so dormant and lethargic in action that such a step should be allowed to pass unnoted, save by the Press. If the small miner is to get equitable treatment and facilities similar to those granted to the small farmer he must see that his case is put strongly before the Government, who are, we believe, perfectly ready to help, when it has been proved to them that help is really needed. Sufficient attention has been drawn to the matter now to make the concerted action of the different Associations who watch the small owners' interest to be of some effect, but unless they wake up and do something the opportunity may pass, the subject sink away and give place to others of interest to other sections of the community. Though the biggest producer this country has less to offer the mining man than any other. True, perhaps, the same applies to the land, but a distinct advance is being made in that direction, because the people demand it. Ever, if we do not reap the harvest ourselves there are other and future generations for whom we work. If the gold industry in this district is in its infancy, surely we should try to work for better laws and facilities that its growth may not be further impeded as it has been in the past. There is a wide field for discussion as to the working of such a bank as we would see formed, but we leave them to able pens. Much may be learnt from the article in the last issue of the "S.A. Mining Journal," however, which deals at length with the subject under the leader "Credit Facilities for the Small Man in Mining."

recent proclamation to regulate mining in Rhodesia. Attention has been drawn to various anomalies in the "conditions" endorsed on the prospecting licence. The committee have given it as their opinion that the principle of legislation, which refers to terms and conditions not embodied in the law itself, and which may be altered at any time by the British South Africa Company, is one inevitably destined to lead to dissatisfaction.

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Mr. Horner, formerly manager of the Union Minière in Katanga, returned a week or two ago as the general manager of that institution. It is reported that there are to be rapid developments there shortly. The Lubumbashi smelters are to be doubled, and early next month, when the Wankie Colliery Company commences to send forward supplies of coke, work will be resumed.

Robinson G.M.

The report on operations at the Robinson for the three months ended the 30th of June also embodies the interim balance sheet, working expenditure and revenue account (subject to audit).

The interim (abridged) balance sheet shows on the credit side for sundry assets—shares, stores, live stock, furniture, sundry debtors, and payments in advance £38,683, and cash on deposit at bankers, value of gold in transit, and investments £723,011. The liabilities are: Sundry creditors, on account of dividends, stores, wages, Government tax, etc., £457,876, and balance of appropriation account £335,198. Working expenditure and revenue account received from gold won is £302,686, out of which total working expenditure absorbed £109,861, or 15s. 8d. per ton milled, which left a working profit of £192,825, or 27s. 5d. per ton milled; sundry revenue brought in £14,434, and the profit on treatment of accumulated slimes was £198, together making the profit for the quarter £197,457. The interim appropriation account (subject to amendment) has a balance brought forward from the 31st of December of £260,100, balance of working expenditure and revenue account for the three months ended the 31st of March £251,428, and for the three months ended the 30th of June £197,457, the total amount being £711,985. Against this sum is charged Government tax (estimated) for the six months £33,037, and dividend account for dividend No. 40 declared on the 11th of June £343,750, which leaves the balance of £335,198 carried to the balance sheet as stated above. The profits appropriated in the last quarterly report, have been reversed. The credit balance of appropriation account is not wholly available for distribution, as the capital expenditure for the six months ended the 30th of June (£1,977 on new construction and £23,288 in respect of under-mining rights annuity), have not yet been appropriated. The amount to be appropriated for these sums will not be determined until the end of the financial year. On development work 1,226 feet have been driven, sunk and risen, exclusive of stopes. The reef disclosures were as follows: Main reef: Distance exposed, 565ft.; width, 38in.; assay value, 28s. 2d. Main reef leader: Distance exposed, 295ft.; width, 35in.; assay value, 14s. 3d. South reef: Distance exposed, 130ft.; width, 22in.; assay value, 76s. 2d. The tonnage crushed during the quarter was 140,600 tons, from which 72,131 ounces of gold were obtained, the total yield per ton being 43s. 1d. From 1,420 tons of accumulated slimes treated 175 ounces were won. The tons developed for the half-year are: Main reef, 29,567 tons; value, 19s. 1d.; main reef leader, 18,918 tons, value 30s. 8d.; south reef, 7,839 tons, value, 68s. 7d.—total, 56,324 tons, value 29s. 10d. The development footage for the quarter showed a considerable decrease, and the reef disclosures were lower on account of the incomplete exposure of the reefs. The residues since the installation of the Butters filter plant have been considerably reduced, and have continued to be low during the quarter. There has been a loss of tonnage on account of accidents underground during April and May. The percentage of main reef mined has been considerably increased, and the grade in consequence has shown a reduction of 30s. per ton milled. Costs per ton milled have shown a large reduction, and at 15s. 7.5d. are again more normal. The native labour position is becoming strained, and profits may be affected unless more labour is obtained shortly. Sands filling has been carried on continuously with a large increase in the tonnage amounted to £162, being for sands filling plant, and air meter house and station. The amount already authorised and still to be expended on capital account is £3,730, made up of £3,629 for sands filling and £101 for air meter house and station.

PROSPECTOR.

Prospector with complete plant and transport will shortly be disengaged; holds Blasting Certificate. Would accept work on Mine, or permanent position with Group.

Address: R/34, c/o Central News Agency, Johannesburg.

LATEST FROM ANGLO-GERMAN TINS, LTD.

Manager Declares Outlook to be "Very Promising."

The following is an extract from the Mine Report for month of July, 1912:—

Shift No. 11.—Crosscutting was started on the 5th of July. The lode, when passed through, was found to be 9ft. wide along the east side of the crosscut and 13ft. along the west side. I then started driving on the lode (on the 20th) along the hanging wall towards the east, and towards the west along the foot wall. The west drive is now 7ft. long and the east drive 8ft. In my former reports I have mentioned that the lode has been much subjected to pressure and movement, and that it is consequently very much broken, fissured and faulted. This is well visible in the drives, where great masses of lode matter came down the moment driving was started. The driving has thus been somewhat delayed as we have had to haul this loose and fallen rock during several days. In the west drive we are now clear of the crosscut, and some good ore can be seen in the hauls of fine grained rock. Towards the east we got out of the lode after driving a couple of feet, and are now driving in schist with fragments of lode. There is, however, lode in the roof of the drive, as a matter of fact we are driving just below a pinch in the lode. Had we started the drive at 45ft. instead of at 50ft., we should have had from 8 to 10 feet of lode. Some rich ore (coarse grained) is found just underneath the hanging wall. The pinch in the lode is purely local, and I hope soon to be out of it. This shaft will require timbering all the way down the moment the wet season starts. At present it is quite safe.

Shift No. 1.—I continued sinking to 50ft., which depth was reached on the 27th of the month. A strip of schist made its appearance in the hanging wall about 10ft. down, it widened out to 3ft., and ended suddenly along a slickenside (faultplane) at 45ft. A sample from the rock in the slickenside, a mixture of schist and lode, gave a very good panning. Crosscutting was started on the 28th, and after a few shots had been put in, the hanging wall was struck one foot away from the shaft. Driving was then commenced, the north drive being now 6ft., and the south drive 3.5ft. in. Here also the lode has been much crushed and disturbed, and a though narrow, where exposed in the crosscut, I am confident that it will increase in width both to the north and to the south. Another lode 2ft. wide was found coming in to the main lode, from the foot-wall side. I intend following this lode a little distance to see whether it has any connection with a lode which outcrops in that direction some 100ft. away. Pannings from the shaft and from the drives show still the same tin contents, bearing out my former remarks.

Shift No. 171. 42ft. deep.—Some good ore was passed through in places down the shaft. The width has remained the same, that is 2ft. The pannings still show the same average values. A windlass has now been erected here, so that the work will proceed more quickly.

White Hill.—South Drive: There is a gradual change in the rock, although so far I have not been able to get any tin in my pannings. The large crystals of tourmaline, which were so abundant in the rock where we started driving, have disappeared, and the rock is getting lighter in colour; it is gradually getting white. East

Drive. Now that we are in solid rock the driving does not go so fast. The quartz body mentioned in my last report made a sudden dip which necessitated removing a good deal of it in order to keep the drive level. I could not find any tin in the quartz itself. Driving through the bulge in the quartz body, we struck white felspar in the right portion of the face of the drive. This white felspar has the same peculiarity of crystallisation as that found near the air face, and in which the largest lumps of tin were found. In the felspar in the drive, tin is also found in largest lumps, but in addition there is quite a deal of tin finely disseminated through the rock. The fissure is still there, it follows the bottom of the quartz body. Lenses of black rock are found in the left portion of the drive in a fine grained felspar. These lenses carry good tin; the best pannings I had this month came from here with the exception of those from the No. VI. shaft. West off North Drive: The vertical band of white felspar flanking the quartz leader is still continuing. I have driven to the right of the leader, leaving it therefore in the left wall of the drive. The white felspar band still contains lumps of tinstone similar to those in the east drive, also some fine tin. I am getting good pannings from this drive. The results here are satisfactory; we are no doubt following one of the tinbearing zones, and the outlook is promising.

No. III.—**Trench on Claim No. 1680.**—The timbering rock which I mentioned in my last report, was found to be, more or less horizontally; it dips slightly to the north-east, underneath the quartz body in which the large vein was found. We are now following the rock, which forms a distinct yellowish band easy to trace. I get few blanks in my pannings from samples taken from this band, sometimes the pannings are quite good. The average panning results are better than those of last month, and I am quite satisfied with our progress here.

Shift No. VI. 50ft. deep.—The footage sunk during the month amounts to 33ft., which is excellent. The pinching of the lode, reported in my last report, continued until in the south side of the shaft, at 40ft., down, the lode was only tin wide. I continued sinking, however, and am pleased to be able to report that the lode widened again, and is now nearly 3ft. wide, and shows signs of still increasing. The tin contents are now better than ever before; I am getting good pannings, going as high as 4. The results are of more than local interest; they have proved that the interfoliated or interbedded pegmatite lodes (that is to say those which run parallel to the schists), do not pinch out at shallow depths, and that the tin contents reappear after the pinch has been passed through. This knowledge is most encouraging, and will be of great help in further prospecting work.

New Lode on Claim No. 1681.—**Shift No. IX.** 12ft. deep.—This shaft is being sunk in the footwall portion of the lode, which dips at an angle of 65 degrees to the west. The shaft is now 17ft. deep, and has been timbered for the first 12ft. The tin contents are as could be expected from the nature of the lode quite consistent, and better than those of the Nos. I and II lodes. We have a large body of lode here and the outlook is very promising indeed. It will be clear from this report that I am well pleased with our July results.

MINING MEN AND MATTERS.

Mr. H. Stuart Martin returned to the Rand this week.

* * * *

Mr. H. H. Johnson, formerly manager of the Village Deep and Bush Tick Mines, has gone to British Columbia on professional business.

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Mr. W. L. Wotherspoon, until recently associated with the engineering staff of the Corner House, has accepted an important position with the International Nickel Company of New York, at Sudbury, Canada.

* * * *

Mr. W. Nichol has relinquished the position of General Manager of the Kamfersdam Mines. It will be remembered that Mr. Nichol was Superintendent of Mines for De Beers up to the diamond slump, having held that position about twenty years.

* * * *

It is notified that the Commission of Examiners for Mechanical and Electrical Engineers' Certificates of Competency will hold the next examination on Wednesday

Thursday, and Friday, the 9th, 10th, and 11th October 1912, at 9.30 a.m., at the South African School of Mines and Technology, Eloff Street, Johannesburg, and also at Dundee, Bloemfontein, and Kimberley if a sufficient number of candidates present themselves. The prescribed form of application for examination is obtainable, without payment, by applying to the Secretary to the Commissions of Examiners, P.O. Box 1132, Johannesburg. These wishing to enter for the examination must send in their applications to reach the secretary by the 25th September, 1912. The following syllabus of examination is published for general information, and a detailed copy thereof will be supplied on application to the secretary. Candidates will be examined in the following subjects:—Mechanical engineers: Basic knowledge, strength of materials and design of structures, power plant, driven machinery and mechanical appliances, electro-technics (elementary). Electrical engineers: Basic knowledge, strength of materials, power plant, driven machinery and mechanical appliances, electro-technics (advanced). Candidates for examination as mechanical or electrical engineers to take charge of machinery in mines will, in addition to the above subjects, be examined on "mining plant."

REDUCTION OF RAILWAY RATES.

Some Further Notes on the Recent Changes.

The forthcoming revision of rates is estimated to involve a surrender of revenue to the extent of £335,000 per annum, so that the total rates reductions are as follows:—Estimated surrender of revenue per annum: From August 1st, £115,000; from October 1st, £335,000; total, £450,000. The undermentioned figures give a broad indication of the manner in which the sum of £335,000 is to be apportioned:—Amount of surrender per annum: Rough imported timber and South African wagon wood, £95,000; revision of port rates, £85,000; paraffin oil, windows, doors, common window glass, tram rails and accessories for agricultural and industrial purposes, £37,500; agricultural and dairying machinery and implements and windmill, £36,000; galvanised iron, £30,000; timber, planed, grooved, or tongued, including ceiling and flooring boards, £32,000; imported cement, £12,000; fencing material, £7,500; total, £335,000. It will be noticed that the reductions to be made from October 1st are of a different character to those operating from 1st August, which were communicated upon in the August article. The latter principally affected coal, minerals, and South African products, but the former relate chiefly to imported goods conveyed inland from the ports. The October revision also affects a much wider range of articles. Another important revision is that it has the effect of removing many irregularities and anomalies which previously existed in port rates, being an inheritance from the days when rates were adjusted by several administrations whose interests were not identical. For instance, the rates from the port of Lourenço Marques to places in the Eastern Transvaal are much higher than are the rates from Union ports for corresponding distances. Again, the rates to Klerksdorp are lower from Port Elizabeth than from Durban, although the distance from Durban is 77 miles shorter. Similar anomalies exist in the respective rates from Durban and East London to the Modderpoort district, in the Orange Free State. It was inevitable that these anomalies should ultimately be removed, as the Administration could not continue permanently to charge higher rates from ports situated at a lesser distance. As was to be anticipated, in view of the terms of the Act of Union, the Transvaal and Orange Free State benefit to a greater extent than the Coastal provinces as a result of the reduction in rates, but substantial reductions are made in the rates from the ports to places in the Cape and Natal

Provinces situated distantly from the coast. So far as can be gathered from an examination of the pamphlet setting forth the revised port rates, the Administration appears to have avoided distributing the relative position of the ports to competitive centres, excepting in cases where certain ports had advantages to which they were not entitled, having regard to their geographical position, such as the instances cited above in the case of the Klerksdorp and Modderpoort districts. It will be observed that rates number 1 and 2 remain practically unaltered, so that goods classified in those tariffs do not benefit from the forthcoming revision. Several important articles in Tariff 2 have, however, been transferred to lower tariffs and are afforded reductions in that way. It would be dangerous to prognosticate the ultimate effect of this important revision of rates; but, in view of the substantial reductions which are being afforded in the rates for transporting building materials, such as timber, galvanised iron, doors, windows, and cement, one may reasonably anticipate a reduction in the cost of erecting houses, farm buildings, and mining property. Whether or not the lesser cost of building a domicile in Johannesburg or Kimberley will be reflected in the household rents is a decidedly speculative matter. The reduction in the rate for paraffin oil seems calculated directly to assist the small consumer. The relief in the rates for agricultural implements, dairying implements, and windmills will certainly help the farming community, and tend to stimulate greater use of modern appliances. Looking at the reductions in rates from a broad standpoint it is doubtful whether they will have any pronounced effect in the direction of reducing the cost of living in the large inland centres. The lessening of transportation costs should, however, conduce to stimulate commerce and trade, and thus confer an indirect benefit on the industrial classes. On the whole, this important revision of rates, involving a lessening of the railway transportation costs on goods, live stock and minerals by £750,000 per annum, ought to afford valuable experience as to what practical benefits result from reductions in railway rates. The statement which appears above: (a) present rate, (b) rate from 1st October, (c) reduction in rate; in respect of the principal commodities affected by the forthcoming revision of rates to Johannesburg, Pretoria, Kimberley, and Bloemfontein.—"Economist," in the "S.A. Railway Magazine."

Modderfontein B.

The report on operations at Modderfontein B for the three months ended the 30th of June includes the interim balance sheet, working expenditure and revenue account and appropriation account. The interim (abridged) balance sheet shows on the credit side ore at surface £11,792, for sundry assets—shares, stores, sundry debtors, payments in advance, etc., £31,657, and cash at bankers and gold in transit, £96,007. The liabilities due to sundry creditors for loans, dividends, stores, wages, Government tax, etc., amounted to £41,082, and the balance from appropriation account was £172,388. Working expenditure and revenue account shows the value of gold recovered to be £178,203, against which working expenses absorbed £86,404, or 18s. 1d. per ton, which left a working profit of £91,799, or 19s. 2d. per ton. Sundry expenditure amounted to £881. The interim appropriation account (subject to amendment) shows that the balance of working expenditure and revenue account for the March quarter was £98,043, and for the June quarter £92,680, making together a total of £190,723, against which is set Government tax (estimated) for the six months, £18,102, French fiscal taxes, £233, which leaves the balance carried to the balance sheet of £172,388 as stated above. The profits appropriated in the last quarterly report, amounting to £58,212, have been reversed. The credit balance of appropriation account is not wholly available for distribution as the amount of liability at the commencement of the financial year (£71,411), together with the capital expenditure for the six months ended the 30th of June (£19,353), have not yet been appropriated. The amount to be appropriated for these sums will not be determined until the end of the financial year. The number of tons crushed was 95,600, from which 42,433ozs. were obtained, the total yield per ton being 37s. 4d. On development work 1,439 feet were driven, sunk and risen, exclusive of stopes. The reef disclosures were as follows: Main reef, distance exposed, 770 feet; width 10 inches; assay value, 112s. 7d. Capital expenditure for the quarter amounted to £8,751, and an amount of £6,112 is required for the completion of authorised work. The values disclosed by the development during the first two months of the quarter were much lower than the average of the mine, but a substantial improvement took place during the last month of the period. The development footage shows a considerable increase as compared with last quarter, owing to the supply of native labour having become more satisfactory. Systematic packing of the hanging wall in the stopes was, as usual, carried out during mining operations was eliminated underground from the ore mined. Generally speaking, the grade of the ore mined remained satisfactory and the underground and surface work proceeded smoothly and efficiently during the quarter.

New Vaal River Diamonds.

The following are details of the diamond output of this company for August: 273 diggers produced diamonds realising £26,149 2s. 6d. and weighing 3,121½ carats. Included in this output were one 2½-carat at £22 10s. per carat, one 39½ at £17 14s., one 10 at £16, one 9½ at £16, one 17 at £15, one 22½ at £14 3s. 6d., one 8½ at £14 2s., one 16½ at £13 16s., one 9½ at £13 15s., one 9½ at £13 6s. 6d., one 20½ at £13 0s. 6d., one 10½ at £13, one 9 at £12 15s., one 20½ at £12 13s., one 25½ at £12 8s. 6d., one 19½ at £12 4s. 6d., one 9 at £12 1s. 6d., one 28½ at £12, one 25½ at £11 17s. 6d., one 9½ at £11 15s., two 10 at £11 11s., one 18½ at £11 10s., one 1½ at £11 8s., one 15½ at £11 0s. 6d., one 7½ at £11, one 12½ at £11, one 23½ at £10 12s., one 17 at £10 11s. 9d., one 34½ at £10 11s. 6d., one 68 at £10 10s., one 23½ at £10 10s., one 17 at £10 10s., one 15 at £10, one 1½ at £10, one 1½ at £10, one 17 at £10, one 38½ at £10, one 19½ at £10, one 13½ at £10, one 47½, one 47, one 36½, one 35½, one 34½, one 33, one 32½, one 27½, one 20½, one 18½, one 16, one 15, one 11½, three 11, one 13½, one 12½, one 12½, one 12½, two 12, one 11½, one 10½, four 10½, and four 10½.

High Mining Salaries

EARNED by those holding Mining Certificates as Mine Managers, Foremen, Surveyors, Mechanical and Electrical Engineers and Engine Drivers. Private Individual Tuition and Correspondence Lessons where personal tuition is impossible.—E. J. MOYNIHAN, Consulting Engineer, 10, Anglo-Austrian Buildings; Box 2061.

THE WEEK IN THE SHAREMARKET.

Better, with More Activity—Many Favourable Factors.

THE fact that the market has experienced days of intervening quietness during the week must not be taken to mean that the tone is weakening or that prospects are less bright. As a fact, old Exchange hands regard it as a hopeful sign, and point out that only a slowly rising market can ensure any degree of permanency. The clear and exhaustive speech made by Mr. Samuel Evans at the Crown Mines meeting has had an excellent effect, and increased confidence in the big amalgamations generally. Diamonds continue to be a strong feature, and the latest accounts from the markets for the stones point to the maintenance of profits and dividends. It is thought, however, that diamond shares have had more than their due attention, and Rand stocks, tins, and the land companies merit a share of favour. Rhodesians are very active, though little, of course, is done in them here. The steady upward tendency of Rand stocks is reflected in the following table:—

	Friday, 30th.	Sat., 31st.	Monday, 2nd.	Tuesday, 3rd.	Wed., 4th.	Thurs., 5th.
African Farms	17 6s	13 0	18 3	18 0	18 9	18 6
Adair-Usher Process	...	...	...	...	1 8s	1 6s
Apex Mines	23 0s	27 6s	28 6s	30 9s	31 9s	30 6s
Bantjes Consolidated	23 6s	24 0s	25 0	26 0	25 0s	25 0s
Benonia	4 11s	4 11s	4 10s	5 0	5 0s	5 0s
Busveld Tins	0 10s	0 8s	0 10s	1 0s	1 0s	1 0s
Brakpan Mines	77 6s	78 0s	...	79 0s	78 0s	78 0s
British S.A.	28 0s	29 3s	29 0s	31 6	30 6s	30 0s
Blauwboosch	28 0	...	27 0s	27 6s	28 0s	28 0
Cinderella Cons.	...	22 0s	20 0s	...	...	24 0s
City and Suburban	46 6s	47 0	46 6s	47 0	47 0	46 3s
City Deeps	62 0s	64 9	66 0	69 0	67 6s	67 0
Cloverfield Mines	6 7s	6 10s	7 2	7 10	7 8	7 9
Cons. Langlaagtes	26 6s	27 0s	27 3	27 6s	28 0	28 0
Cons. Main Reefs	19 9s	20 3	20 0s	20 6	20 3	20 3
Coronation Freeholds	0 8s	...	0 6s	0 6s	0 6s	0 6
Con. Investment	...	21 0s	...	...	...	...
Crown Mines	141 3s	142 6s	146 3s	...	...	...
Coronation Colls.	...	13 6s	...	...	...	...
East Rand Cent.	13 4s	13 6	13 6s	14 6	14 0s	14 3
East Rand Coals	2 4s	2 5s	2 4s	2 7	2 6s	2 8
East Rand Deeps	2 6s	2 6s	2 7s	2 10s	3 0s	3 3
East Rand Props.	58 6s	58 9s	59 0s	60 0	60 6	59 6s
East Rand Deb.	£91½	...	£92	£91½	£91½	£92
Eastern Gold Mines	2 0s	2 0s	2 3	2 3s	2 3s	2 1s
Frank Smith Diam	10 0	10 0	10 2s	10 0s	9 3s	9 0s
Govt. Areas	25 0	25 9	24 0	25 6	26 0	26 0
Glynn's Lydenburgs	28 0	28 0s	28 9s	28 0s	28 6s	28 0s
Glencairna	3 0s	...	4 0s	4 0s	4 0s	4 0s
Glencoe (Natal) Colls.	...	...	6 3s	6 3s	6 3s	6 3s
Geduld Props.	25 6	26 6	26 0s	28 3	27 6s	27 9s
Jumpers	6 0s	...	...	6 6s	...	...
Jupiters	11 6s	11 0s	11 8	12 0	12 0	12 3
Kaalfontein Diamonds	...	...	...	...	...	0 5
Klerksdorp Props.	3 3s	3 0s	3 3s	3 3s	3 0s	3 0s
Knight Centrals	15 0s	15 3s	15 6	16 6	16 3	16 3
Luipaardvlei Estates	12 6s	12 6s	12 9	...	12 3s	...
Lace Props.	4 4s	4 5s	4 8	5 0	5 0	4 10
Lydenburg Gold Farms	2 8s	...	2 8s	2 9	2 9	2 11s
Main Reef Wests	21 6s	22 6s	22 6	22 3	23 3	23 9
Modder B's	8 6	7 1	7 0s	7 6s	7 4	7 6s
Middelvlei Estates	1 8s	1 8s	1 7s	1 7s	1 7s	1 7s
Modder Deeps	35 6s	35 9s	36 6s	38 6	38 9s	42 0
Meyer & Charltons	...	95 0s	...	97 6s	100 0s	...
New Eras	8 0s	8 4	8 3s	9 0	8 8s	8 8s
New Kleinfontein	...	26 6	26 0s	26 6s	27 0	27 4
New Rietfonteins	8 0s	7 9	7 0s	7 6s	8 3	8 6
New Unifield	...	...	...	18 0s	18 0s	18 0s
New Boksburgs	...	2 9s	...	2 0s	2 0s	2 0s
Nigels	18 0s	20 0s	20 0s	18 0s	20 0s	20 0s
New Geduld Deeps	2 4s	2 4s	2 4s	2 5s	2 6s	2 6s
Orange Diamonds	1 5s	1 6s	1 0	1 7s	1 7s	1 7s

* Buyers.

* Sellers.

	Friday, 30th.	Sat. 31st.	Monday, 2nd.	Tuesday, 3rd.	Wed. 4th.	Thurs. 5th.
Premiers Deferred	227 6s	...	...	...	245 0s	244 6s
Pigg's Peaks	13 6s	15 0s	15 0s	16 6s	16 9s	...
Pretoria Cement Co.	51 6s	52 0s	52 6	53 0s	53 6s	53 6s
Paardekraal Estates	...	...	1 0s	1 2s	0 9s	1 0s
Potchefstroom Est.	1 3s	1 3s	1 3s	1 6	1 3s	1 3s
Princess	10 0s	10 3s	10 0s	11 3s	11 6s	10 9
Rand Nucleus	3 3s	3 4s	3 6	4 7	7 6s	3 6s
Randfontein Estates	30 0s	30 9	31 6	31 9s	33 0	33 3
Randfontein Deeps	4 6s	4 6s	4 9	5 6	5 6s	5 6s
Rooiberg Minerals	29 9s	29 9s	30 6s	31 6	31 3	30 0s
Rand Klips	4 8s	4 8s	4 9	4 10	4 9s	4 9
Ryan Nigels	...	3 9s	4 9s	...	3 9s	3 9s
Roberts Victors	...	23 0	21 0	24 0s	21 0s	...
Rood. Durban Deeps	25 0s	26 0s	27 6	28 6s	28 6s	27 6s
Simmer Deeps	8 0s	3 3s	4 3s	...	3 4s	3 0s
South African Lands	4 9s	4 11	5 5	5 6	5 6	5 5
S. Randfontein Deeps	4 6s	4 0	4 0s	...	4 0s	...
Sub Nigels	6 0s	6 0s	6 3s	6 4s	7 0s	7 6
Spring Mines	19 0s	16 6	18 6s	15 0	17 0s	17 0s
S. A. Breweries	10 0s	40 0s	40 0s	41 0s	40 9s	41 0s
Shebas	5 9s	5 9s	5 10	6 0	5 6s	5 6s
Trans. G.M. Estates	48 6s	49 0s	49 0	49 0s	50 0s	52 0
Temple Tins	3 0s	...	3 0s	3 0s	...	...
Trans. Coal Trusts	44 3s	47 0	47 0s	49 0	48 4	48 0s
Tudors	1 4s	1 5s	1 6s	1 6s	...	...
Trans. Cons. Lands	...	32 6s	32 0s	34 0s	...	33 3s
Van Ryn Deeps	18 3s	18 6s	18 9	19 9	19 6	20 0
Village Deeps	...	42 0s	43 6	44 6s	45 0	45 6s
Vogel. Cons. Deeps	1 4s	1 6	1 6s	1 6s	...	1 6
Voorspoed Diamonds	10 6s	10 0s	...	10 0s	...	10 0s
Van Dyks	...	2 0s	...	...	...	...
Witwatersrands	59 0s	...	...	54 0s	...	...
Wolhuters	20 9s	20 9s	20 6s	20 9s	20 9	20 9s
Witbank Collieries	45 0s	45 6s	42 0s	42 0s	42 0s	43 0
Wit. Deeps	53 0s	52 0s	52 6s	53 0s	...	53 0s
West Rand Est.	...	3 3s	...	3 9	3 3s	3 6s
West Rand Con.	13 6s	14 0s	14 0s	15 0	14 9	14 9s
Zaaiplaats	36 0	35 0	36 3s	37 4	39 0	41 3

* Buyers.

* Sellers.

The Sheba.

The following telegram has been received from the mine:—August output.—Mill ran 20 days, crushed 5,660 tons yielding 3,199 ozs. fine gold. Estimated price £1876.

CORRESPONDENCE AND DISCUSSION.

Sandycroft Limited.

To the Editor, South African Mining Journal.

Sir,—We beg to give you notice that in future the title of our firm will be "Sandycroft Limited." We have been compelled to make this alteration owing to the confusion of ideas resulting from the use of the title "Sandycroft Foundry Co." Many people have imagined, and there has been an impression amongst those who do not know our works, that we were makers of iron castings and heavy engineering work only. As a matter of fact we have been making electrical machinery, starters, motors, and generators, both D.C. and A.C., for the past twelve years. This machinery has been supplied not only in connection with our mining machinery, but for all industrial purposes. I am, etc.,

W. D. POOLE
For SANDYCROFT LTD.

Sandycroft, near Chester.
August 9, 1912

"SISKOL" DRILLS.

FURTHER CONSIGNMENTS OF THE
NEW HAMMER-DRILL

HAVE NOW ARRIVED.

MACHINES SENT ON TRIAL.

WRITE FOR DETAILS.

**"SISKOL" STOPING AND HAMMER-DRILLS.
COAL-CUTTERS.
AIR-COMPRESSORS.**

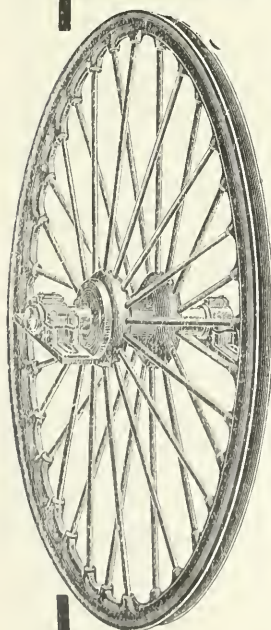
International Channelling Machines, Limited. (INCORPORATED
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Phone 2643.

Telegrams: "SISKOL."

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Up to 25 feet in Diameter.

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Specially Suited for deep Mining, any Section or Load.

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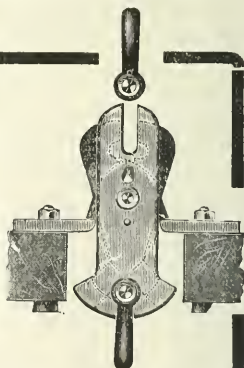
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THOMPSON & SOUTHWICK, LD.

(Export Dept.) ENGINEERS,

Cables: "PULLEYS."

TAMWORTH, England.



Engineering Notes and News.

The Association of Consulting Engineers.

The first meeting of duly elected members of the Association of Consulting Engineers was held at the Institution of Electrical Engineers on Monday, July 22nd, Mr. G. Midgley Taylor, M.Inst.C.E., presiding. The hon. secretary, Mr. A. H. Dykes, read the list to date, eighty in all, explaining that some had only joined conditionally on their being satisfied with the rules in their final form. The chairman then said the business of the present meeting was to receive the rules presented at the meeting held in January, and the report and proposals of the Provisional Committee, and to elect the first committee of the Association. The committee had, after consultation with their legal advisers, adopted the following definition:—"A consulting engineer is a person possessing the necessary qualifications to practise in one or more of the various branches of engineering, who devotes himself to advising the public on engineering matters, or to the designing and supervising the construction of engineering works, and for such purpose occupies his own office and employs his own staff, and is not directly or indirectly concerned or interested in commercial or manufacturing interests such as would tend to influence his exercise of independent professional judgment in the matters upon which he advises." The committee thought that probably not 5 per cent. of the members of the Institution of Civil, Electrical and Mechanical Engineers complied with the definition of a consulting engineer that the committee had already laid down, and that there had, up till now, been no source from which anyone could obtain definite information as to who was an independent consulting engineer and who was not. The Association, subject to the rules being amended, would be composed of those members of the three institutions on whom the rules of professional conduct drawn up by the Institution of Civil Engineers, and since accepted by the Institution of Electrical Engineers, were always binding, as distinguished from those members who were only bound by them when acting in a consultative capacity. The Association did not suggest that any duly qualified engineer should not be consulted on any engineering matter on which he was an expert; but they did not say that it should be possible to distinguish the independent consulting engineer from the expert who might be closely identified with manufacturing or contracting interests. The objects of the Association were set out in the Articles of Association, and they were, briefly, to uphold the standard of professional conduct and to promote the professional interests, rights, powers and privileges of consulting engineers. The Articles of Association and the rules, as proposed by the committee, were in the members' hands, including the alterations of the original rules, which the committee now asked the members to approve, and which were as follows:—1. That the subscription be raised from one guinea to two guineas. 2. That corporate membership of the Institution of Civil Engineers or full membership of the Institution of Electrical or Mechanical Engineers be accepted as evidence of technical qualifications for membership of the Association. 3. That members be entitled and requested to use the abbreviation M.Cons.E. when stating their qualifications. 4. That the committee be increased to 18, of whom not more than 12 shall be London members. After the rules had been finally approved by the meeting, the earliest opportunity would be taken to submit the memorandum and articles of association for the approval of the Board of Trade, and to register the Association, after which the final rules and list of members would be printed and circulated amongst the members, and Government Departments and engineering and public bodies would be notified of the formation of the Association. It was felt that the Association, as the only body representing consulting engineers, would form a useful channel through which the opinions of consulting engineers could be ascertained, and with which bodies representing other engineering interests could usefully confer. The meeting approved the alterations and the addition (with

regard to the use of the abbreviation "M.Cons.E." set out above. The chairman then moved, and Mr. W. R. Cooper seconded, a resolution that the memorandum and articles of association and the rules as amended and as printed in the document before the meeting, be received and adopted, which was duly carried. Mr. J. H. Blizzard proposed that the members suggested by the committee (Messrs. J. S. Alford, H. P. Boulnois, W. T. Douglass, B. Latham, E. L. Mansergh, W. M. Morley, W. H. Pathe, H. Rife, J. F. C. Snell, E. H. Stevenson, J. Swinburn, and G. M. Taylor) be the London members of the committee for this year. Mr. A. A. Campbell Swinton seconded, and the motion was duly carried. The chairman then proposed that the list of country members of the committee be left vacant for the present, on the understanding that the committee would fill the list up with the best names they could find for the provincial towns, and the motion was duly carried.

Modern Ventilating Machines.

At the meeting of the Midland Institute of Mining, Civil and Mechanical Engineers, held at Sheffield on the 30th ult., Professor F. W. Hardwick (president) in the chair, a discussion took place upon the paper on "Modern Ventilating Machines," read by Mr. W. Charlton, of the South Staffs. and Warwickshire Institute of Mining Engineers. The president remarked that perhaps the most interesting part of the paper was that which dealt with the arrangement for reversing the air current. The paper as far as he could make out, dealt more particularly with methods of reversing at the fan itself, and did not touch upon special arrangements in the pit. This matter was important, for if they reversed the air current in the shaft, there was the question of the separation doors. Mr. W. Price Abell was surprised that Mr. W. Charlton, whilst pointing out defects of the older Guibal and Waddle fans made no mention of modernised fans, and pointedly ignored the great improvements that had recently placed the modernised Waddle fan arrangement as much in the foreground for efficient and reliable mine ventilation to lay the older type was in the foreground 40 years ago. He would like to ask Mr. Charlton why he styled his paper "Modern Ventilating Machines" whilst omitting any mention of the recognised principles and improvements of the oldest and most universally adopted colliery fans.

Messrs. Jenkins & Co. have removed their offices from 174, Main Street, to Ginsberg Chambers, corner Men and Simmonds Streets, as from 1st September 1912.

ANSWERS TO CORRESPONDENTS.

- "E.L.P."—We deal with the company on another page.
- "Potch."—Certainly, you should average.
- "Tin" (Bloemfontein)—Work is going on slowly, better hold.
- "Eastern."—Not likely to participate in the improvement.
- "P.D."—In liquidation—nothing for shareholders.
- "Hopeful"—Reconstruction is necessary, but we cannot forecast the basis.

We are asked to correct a misprint in Prof. Jacobson's letter, appearing a fortnight ago, on the estimated gold losses in the zinc sulphate solution of the Rand. We printed total "cost" instead of total "loss," the figure being £163,800 sterling.

Finance, Commerce, and Industries.

There was a very large attendance at Mr. Richard Currie's property saleroom, last week, when the following farms and properties were disposed of:—One-fourth undivided share in the remaining extent of "Hekpoort"

The Property Market.

No. 122, Krugersdorp, in extent about 1,100 morgen, portion No. 57 of the farm "Hekpoort" No. 122, Krugersdorp, in extent about 18 morgen, with all buildings thereon, and one undivided fourth of Lot 39 of portion 1 of "Hekpoort" No. 122, Krugersdorp, in extent about 6½ morgen, with all buildings thereon, £3,300. One-twelfth undivided share in about 2,346 morgen 236 square rods of the farm "Houtkop" No. 33, District Krugersdorp, £185. One-eighth undivided share in about 2,428 morgen 591 square rods of the farm "Yserfontein" No. 541, District Rustenburg, £225. One-half undivided interest in Krugersdorp Erven Nos. 112 and 135, with all buildings thereon, £450. Stand No. 164, Bezuidenhout Street, Troyeville, £200. Stand No. 119, Bezuidenhout Street, Troyeville, £200. Stands 1, 2 and 29, Melrose Township, with well and foundations thereon, £500. Total, £5,060.

* * * *

At a meeting held at the Premier Mine last week, Sir T. Cullinan, M.L.A., dealt with his record of work at Capetown, and explained that a number of measures had been passed by the Nationalist Party.

Sir T. Cullinan at the Premier.

His speech, however, was in the main in defence of a protectionist policy, and he particularly referred to Australia, and quoted statistics to prove that Australia is flourishing. He contrasted this position under a protectionist tariff with the situation in South Africa. He also dealt shortly with white labour, stating that he was employing white labour on a small mine in which he was interested in the Free State. Before concluding, Sir Thomas referred to his position as a supporter of the Government, and stated that he would do his best to secure the adoption of a progressive policy.

* * * *

The rapid increase in the value of farm property which has taken place recently appears to be occasioning some little anxiety in financial circles. It is feared that in certain instances land has been boomed to an unreasonable degree, and prices paid which are not justified by present conditions. At the last annual meeting of the Guardian Assurance Company of Port Elizabeth, Mr. William Macintosh, who presided, referred to the subject in relation to the need for exercising caution when accepting mortgages on farm property. He said that the directors wished to issue a warning as to the values which are nowadays put on farm properties. They believed that, generally speaking, they were sound, but there was a tendency to pay prices which could not possibly bring in an adequate return from farming operations.

* * * *

At the seventeenth annual congress of the Association of Chambers of Commerce, to be held in Maritzburg, the middle of this month, the Bulawayo Chamber will move: That it is impossible for the inhabitants of this country to bear any greater fiscal burden than they are doing under the present tariff. The people of Rhodesia are fully alive to the mutual benefits accruing from the Customs Convention with the Union of South Africa, and, whilst desiring to continue to have reciprocal trade, especially in food stuffs, canned fruits, etc., with the Union, this Chamber wishes to point out that the existing tariff bears heavily on the population of this country, where the price of all commodities is largely increased by the high cost of transit from the coast. The resultant abnormal cost of living is a big factor in retarding the progress of these territories, and public feeling on this

point is very strong at the present time, and demands a reduction of railway rates and tariffs wherever possible. Under these circumstances, this Chamber feels that, rather than consent to the proposed increase of duties, it would be in the interests of the inhabitants of Rhodesia to withdraw from the Customs Convention, and to frame a tariff suitable to the peculiar needs of this country."

The Salisbury Chamber desires to have it recorded that it is strongly opposed to any increase being made in the Customs duties applicable to Rhodesia.

* * * *

The seventeenth annual Congress of the Association of Chambers of Commerce of South Africa will be held on September 16th, 17th, and 18th, at Maritzburg. The General Executive Committee will make a long report, which will contain the following:—The general improvement in the conditions of trade which has been noted during the last year or two has been sustained, although as far as importations are concerned there has been no desire to materially increase the stocks in hand. Agriculture continues to afford signs of increasing prosperity—despite the occurrence of diseases such as East Coast fever in the more eastern areas and of drought in some districts of the inland Provinces of the Union. Generally there are ample evidences that the country is advancing—for it may be noted that imports and exports have increased; the railways, posts and telegraphs, and the Customs returns all show expansion of business, in addition to the transactions of the banks; while a falling off in insolvencies points in the same direction.

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The British Trade Commissioner's Office, Capetown, has supplied a statement relating to the external trade of the United Kingdom for the first six months of 1912, with special reference to British South Africa. The accounts relating to the trade and navigation of the United Kingdom for June show that the values of the merchandise imported into, and exported from, the United Kingdom during the first six months of the year were as follow:—Imports, £353,995,000; exports, £283,147,000; United Kingdom produce, £225,313,000; foreign and Colonial produce, £57,834,000. Compared with the figures for the first half of 1911 (the highest previously recorded), these totals show the following increases: Imports, £19,872,000, or 5.9 per cent.; exports—United Kingdom produce, £1,645,000, or 0.7 per cent.; foreign and Colonial produce, £2,916,000, or 5.4 per cent. Regard being paid to the adverse influence during the half-year of serious labour troubles (notably the coal strike and the strike of London transport workers), these figures indicate a satisfactory expansion in trade. The foregoing totals relate to merchandise only. The total values of gold and silver, bullion and specie, both imported and exported, during the six months were as follow:—Imports, £32,100,000; exports, £26,400,000. The values of the imports from, and of the exports and re-exports to, British South Africa during the first six months of each of the years 1911 and 1912 were as follow:—Values of merchandise only (exclusive of gold and diamonds):—Imports: 1911, £5,076,000; 1912, £6,055,000. Exports of United Kingdom produce: 1911, £10,589,000; 1912, £10,719,000. Re-exports: 1911, £906,000; 1912, £952,000. There was thus a substantial increase in imports, and small increases in exports and re-exports. Among the principal articles were the following: Imports from British South Africa, January-June, 1912: Wool (sheep's or lambs'), £2,990,000; mohair, (Angora goats' hair), £317,000; skins (goats' or sheep's), £494,000. Exports of United Kingdom produce to British South Africa, January-June, 1912: Iron and steel, and manufactures thereof (so far as distinguished in the monthly accounts), £1,142,000; machinery (so far as distinguished in the accounts), £683,000; cotton piece-goods, £567,000; apparel, £1,559,000; boots and shoes (of leather), £514,000. The value of the gold bullion imported from British South Africa during the first half of the year 1912 was £19,638,000, as against £17,739,000 during the same period of 1911.

Anyone who cares to follow the fate of the truck-loads and train-loads of sheep, goats and cattle which steam steadily northwards day after day and year after year from the great stock-raising districts of South Africa will be interested to note from a recent report to the Standing Committee of the Transvaal Agricultural Union that since the Johannesburg saleyards were opened some 2,000,000 sheep and goats have passed through. It is stated that 80,000 sheep per month are required to supply the butchers between Krugersdorp and Boksburg. In March, 1912, 77,197 sheep arrived, in April 59,075, in May 70,000, and they were all slaughtered within three weeks after being sold in Johannesburg.

The following statement has been issued from the offices of the High Commissioner for the Commonwealth of Australia:—The virtue of the divining-rod as a means of finding artesian water is quite accepted in Australia. The early scoffers at the man who, holding a green-wood rod in his hands, walked over waterless country till the rod distinctly curved and bent as he held it, and who declared that by that sign he knew water could be tapped at a particular spot—those early scoffers no longer raise their heads. The divining rod in the hands of a man who has "the gift" is an absolute creed in the

Australian back-country, and justly so, for it has proved itself over and over again. An interesting discussion was held in Perth, Western Australia, last month, on the divining rod and its reliability. Nobody has ever yet satisfactorily explained why the rod should, in proper hands possess the power which it undoubtedly does possess; but that there is also some human agency in the matter is obvious, for even over an artesian supply the rod will not respond in everybody's hand. None of the experienced speakers on the subject at the Australian meeting above referred to could elucidate the matter. But to the efficacy of the divining rod there was no tribute lacking.

It may not be generally known, says the Grahamstown "Journal," that several farmers residing on the banks of the Great Fish River, between Thorn Grove and Witmoos Stations, have shewn their pluck and enterprise by jointly constructing a tunnel near the Witmoos "horse shoe," in order to bring the waters of the "Fish" along a widely-constructed furrow several miles down, on to extensive lands; for the purpose of growing mealies, oathay, lucerne, or corn, etc. This is as it should be, and a much wiser course to adopt than to allow the waters of our rivers to rush off, after each heavy fall of rain, to the sea, carrying away also in their swift flow, the cream of the earth, in the huge mud deposit. It may here be mentioned that, while this work is in progress on the banks of the Great Fish River, we have some ten or a dozen "suction pumps" (which draw up and throw out a great volume of water) on the banks of the Little Fish River, between Rippon Siding and Somerset, and with these pumps the farmers are irrigating extensive areas of land.

A report on the trade of German South-West Africa for 1911, by Mr. Consul E. Muller, states the value of the foreign trade for 1910 at £3,951,000, of which imports accounted for about £2,217,000 and exports about £1,734,000. The trade for the first nine months of 1911 totalled £2,845,000, imports being valued at about £1,735,000 and exports about £1,110,000. Imports of machinery and locomotives during the nine months showed an increase of £812,000. Owing to the chronic shortage of labour the exports—diamonds, copper and lead—showed a decline of £189,000. The Government estimates of revenue and expenditure for the year ending 31st March, 1913, provide for an ordinary revenue of £884,000, to which is added savings of previous years, etc., £229,000. Ordinary expenditure is set down at £1,409,000, and extraordinary £396,000. As total revenue, £1,113,000, deducted from total expenditure, £1,805,000, leaves a deficit of £692,000, this amount has to be made up from the Imperial Treasury. The Government will, in addition, spend £450,000 on railways during the year 1912-13. A census taken on 1st January, 1911, states the white population at 13,962, of which the garrison numbered 2,072, British subjects numbered 1,866. The native population was estimated at 70,537, excluding Ovamboland and the Caprivi Zipfel. The number of natives in the service of white employers on the census date was 20,122. To these should be added 6,881 coloured labourers from abroad, mostly from the Union of South Africa. Of the narrow gauge railways 880 kilometres are now open to traffic, and of the standard Cape gauge 1,241 kilometres.

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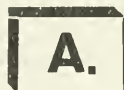
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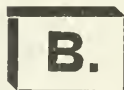
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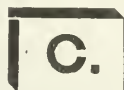
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Automobile Notes.

T.A.C. Speed Contest.

The Transvaal Automobile Club speed competition, an annual event in which much interest centres, is being held to-day on the Main Reef road, near Benoni. This year the rules and conditions governing the contest are somewhat similar to those on former occasions, being divided into two classes, viz.: stripped and touring condition, respectively. A handicap allowance has been arranged for cars liberally scaled in accordance with the horse-power, and which is calculated to meet the requirements of the most exacting among the competitors. The course of one mile provides for a flying start and finish. First and second prizes will be awarded to cars competing in stripped condition, and similarly first and second to the winning cars conforming to the club's definition of touring condition. Provision, as in the recent "Park" event, is also made for American competitors, and a special prize is offered on condition that no fewer than five cars enter, or four actually participate. In addition, the T.A.C. have signified intention to offer a prize for the fastest time to the credit of any car, irrespective of horse-power, while special consolation prizes will be awarded to drivers in each of the classes referred to. These latter prizes will be in the form of outer covers, kindly presented by the Leyland and Birmingham Rubber Co., Ltd. The results, which are keenly anticipated in motorist circles, are expected to show some remarkable speeds.

The Motor-Car in Relation to Travel.

The automobile, to a great extent, is meeting the demand for facilities in point of travelling, which seems more and more pronounced each year among the general public. Motoring, and especially the touring phase of the pastime, was never more popular than at the present time. Even in South Africa, where, taken as a whole, the road system, despite the immense strides which has characterised construction work of recent years, calls for such improvement, motor touring under modern conditions is one of the most luxurious and gratifying of all the varied forms which pleasure-taking assumes, and, recognising adventure as the chief delight afforded by travel, South Africa should rank very high in the estimation of the tourist whose motoring

experiences in other parts of the world are robbed of much of this quality of adventure, inseparable to travelling in the Sub-Continent. The Rand-Coast road, recently commented upon in these columns, should, on completion, be largely instrumental in attracting the motoring element among overseas tourists whose travels in the past have been more or less confined to the Continent of Europe, and to whom the charm of the South, strange to relate, has not yet appealed. How best to attract this most desirable class of tourist is a moot question; certain it is, however, that were the romantic nature of the travel possible in South Africa suitably recognised by the leisured motorist classes referred to, an influx of visitors would undoubtedly attend such recognition, a fact which, by the way, would offer at least a partial solution to the problem, now uppermost in so many minds, of "How best to advertise South Africa." There is no reason why this country should not rival many parts now exclusive, so to speak, in a tourist sense.

The Expansion of the Motor Industry.

The progress of the motor-car industry, which, in the past, has been mainly confined to the several larger towns in South Africa, is experiencing a decided fillip in the demand which has sprung up in the district parts for the automobile, and the future development of this field will be watched with keen interest by the promoters of the industry. Generally speaking, an unfortunate tardiness has marked the introduction of the car to the country places, and it is surprising the numbers who still view this means of locomotion askance, which, however, may be attributed to a lack of knowledge of how far the uses of the motor can be taken advantage of. Mr. S. F. Edge, in his recent tour of South Africa, was particularly impressed with the possibilities of the automobile in reference to the farmer, and was of opinion that incalculable advantage lay in its adoption. To quote Mr. Edge's words: "It would mean a great deal to the farmer in enabling him to keep in touch with neighbours, and neighbouring villages and towns. It would, in short, constitute a private railway." The expansion of the industry in the many districts has rendered necessary the establishment of garages and supply depots.

Another South African Success for CONTINENTALS!

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where the usual facilities are provided, and the inconveniences occasioned to the tourist in the past owing to the difficulties of having repairs effected and supplies replenished at remote points, are therefore no longer anticipated with dread by the motorist contemplating an extended tour.

"Here and There."

With the close of the racing season, the Transvaal Automobile Club purpose holding a motor gymkhana, a fixture now recognised and appreciated by club members as a fitting event with which to conclude the excellent yearly programme provided by the committee.

Numbers of persons attribute the presence of pneumonia, and other ailments of a somewhat allied nature, to the increasing use of the motor car. How far this may be true is open to question; at the same time none can dispute the ease with which colds are caused by draughts oftentimes inseparable to motoring. To mitigate this nuisance a modification in design, which manufacturers might experiment upon, would consist of a sloping bonnet merging into the dash with a low screen following to some extent the same lines, a provision which would greatly serve to eliminate the risks at present encountered in regard to draughts.

The "pioneer" taxi-cab of Johannesburg is rapidly being displaced by machines luxurious and up-to-date in every respect. This change has been effected none too soon, as the least initiated person to things motoring must conclude on a comparison of the obsolete machines doing duty in the past, and the many graceful, roomy cars, efficient and powerful, to be found at present on the various ranks.

Of much interest to the South African motorist is a handy reference work, compiled by the Dunlop Tyre Co., in which full particulars are given respecting the detachable rim and detachable wheel in which the firm specialises. In addition, the sundries list is a comprehensive one in which motorists will find many articles which exactly fill the many every-day motorist wants.

For the type of commercial vehicle, easily convertible for either goods or passengers, especially the petrol-propelled model, an expert on industrial machines predicts a great

future in South Africa. Such tractors must of necessity embody the indispensable features which colonial conditions exact, namely, exceptional road clearance, approved type of springing for the roughest roads, powerful and efficient brakes, and, in short, be designed and constructed for hard work under the most severe conditions.

The question of motor accidents in London has once again been brought before the House of Lords, when it was suggested that a speed limit of 15 m.p.h. should be imposed. It was pointed out, however, that a very slow speed would not necessarily conduce to safety, for in the City proper, where traffic is always congested, and the pace slow, the proportion of accidents is much greater than in other parts of the Metropolis. This information may be interesting in view of the legislation being shortly brought to bear within the Union in the matter of speed limits.

Each year in the last decade of motoring has produced a bargain in automobiles, says a London writer, which means that the purchaser got more than value for his money. This year, owing to the immense progress in car construction, and consequent fierce competition, it is rendered harder for the economist to pick out which car represents the bargain of the season, states the same writer. With the recent telegrams announcing the startling intention of American manufacturers to market a car in England at £50, it is hard to reconcile the expert's views on the question of bargains. It may be added that the writer dismissed entirely from his calculations American importations.

The British manufacturers of the light car are concerned at the announcement that next year's Grand Prix is to be run on a fuel consumption basis, the allowance being a gallon for every 14.1 miles. It will also be a single day race over 560 miles. It is not expected, however, that the changed conditions will influence much, as every manufacturer will naturally endeavour in the interim to produce an engine of such a size as will yield the best possible results and cut down the limit of petrol safety as far as possible.

Answers to Correspondent.

"Automachin."—Replying fully by mail to your enquiry.

African Farms.

Tenders are invited for the sole trading rights, etc., on the farm Welgevonden No. 1772, situate in the Waterberg district, and about nine miles west of Naboomspruit Station, as follows:—(a) Trading rights; (b) hotel, bakery and butchery; (c) kafir eating-house. Tenders are to be for a period of five years; the rental to be payable monthly in advance; all buildings, etc., to be erected by the successful tenderer and at his own cost. A battery is being erected on the property and will probably be running by January next.

Village Main Reef.

The report for the three months' operations ended the 30th of June, issued by the Village Main Reef, embodies the interim balance sheet, working expenditure and revenue account and appropriation account (subject to audit). The interim (abridged) balance sheet shows on the credit side for sundry assets—shares, stores, sundry debtors, and payments in advance, etc., £32,149, and cash at bankers and value of gold in transit, £370,587. On the liabilities side sundry creditors on account of loans, dividends, stores, wages, Government tax, etc., amount to £210,611, and the balance of appropriation account is £280,090. Working expenditure and revenue received from gold, £223,946, out of which the total working expenditure is £109,990, or 18s. 8d. per ton milled, which left a working profit for the quarter of £113,956, or 19s. 4d. per ton. The profit on treatment of accumulated slimes amounted to £2,796, and sundry revenue £1,448, making together a total of £118,200 carried to appropriation

account. The balance brought to appropriation account from the 31st March was £80,522, and now for June £118,200, making a total of £198,722. The charges against this total are: Government tax (estimated), three months, £9,996; French tax, £2,700; income tax, £5,200; dividend No. 23, declared in June, £165,200; and the balance, £15,626, carried to the interim balance, to which is added the balance brought forward at the 31st December of £261,464, making together the above total of £280,090. On development work 643 feet were driven, risen and sunk, exclusive of stopes. The reef disclosures were as follows: Main reef leader: Distance exposed, 272 feet; width, 12ins.; assay value, 45s. 1d. South Reef: Distance exposed, 224ft.; width, 8ins.; assay value, 81s. 5d. The tonnage crushed during the three months was 117,946 tons, from which 53,435ozs. of gold were obtained, the total yield per ton being 38s. 1d. From 7,680 tons of accumulated slimes treated 908ozs. were won. Ore mined for the quarter shows a substantial increase, 143,752 tons as against 115,950 tons for last quarter, due to the more satisfactory labour conditions now obtaining on the mine. Development footage is now steadily decreasing owing to the few faces left only 643 feet being accomplished during the quarter.

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THE AUGUST OUTPUT: GROUP RETURNS.

Features of Month's Work Reflected in Figures.

Rand Mines Group.

The following are the results of crushing operations of the Eckstein companies of the Rand Mines, Ltd., for August:—

Company.	No. of Stamps.	Tube Mills.	Tons crushed.	Estimated Working Costs per Ton.	Total Fine Ore.	Total Estimated Profit.
Modder B.	80	5	34,770	17/ 2/5	15,696	£35,973
New Modder	180	7	39,850	21/ 4/3	21,778	48,441
City Deep	110	9	41,500	23/ 11/6	18,160	26,184
Village Deep	180	7	50,700	20/ 4/9	18,371	25,306
Village Main Reef ...	220	6	43,380	16/ 11/8	20,648	48,982
Robinson	250	6	51,200	14/ 10/6	24,130	62,782
Bantjes	85	3	23,550	23/ 11/6	8,654	8,079

Totals & averages 1105 43 284,950 19/ 5/4 127,437 £255,747

The declared estimated monthly profits for 1912 are:—January, £221,326; February, £213,242; March, £373,426; April, £225,284; May, £243,784; June, £231,590; July, £229,719; August, £255,747.

The following are the results of crushing operations of the subsidiary companies of the Rand Mines, Ltd., group for August:—

Company.	No. of Stamps Running.	Tube Mills.	Tons crushed.	Estimated Working Costs per Ton.	Total Fine Ore.	Total Estimated Profit.
Rose Deep	300	7	66,000	17/ 4/2	22,393	£36,718
Geldenhuys Deep ...	300	7	49,300	26/ 9/2	16,735	4,019
Nourse Mines	260	7	56,600	20/ 5/7	20,448	27,563
Ferreira Deep	225	7	51,440	21/ 10/4	24,833	47,332
Crown Mines	660	26	158,600	18/ 10/3	58,087	94,248
Durban Rood. D. ...	100	3	25,740	23/ 11/6	9,739	9,905

Totals & averages 1845 57 407,680 20/ 6 152,210 £220,285

The declared estimated monthly profits for 1912 are:—January, £206,122; February, £209,989; March, £267,731; April, £224,289; May, £238,281; June, £242,288; July, £241,295; August, £220,285.

With reference to the attached two statements of the August outputs of the Rand Mines—Eckstein groups, the secretaries advise as follows:—

Geldenhuys Deep, Limited.—The decrease in the profit for August is due to severe shortage in native labour.

City Deep, Limited.—Of the tonnage milled, only 140 tons were from the dump.

Crown Mines, Limited.—On the 12th August, No. 5 shaft was brought into commission for haulage of ore and haulage through the old numbers 1, 2 and 3 shafts is being gradually abandoned. The transition from old conditions has temporarily affected costs, grade and tonnage, but normal results may be expected very soon. Everything working smoothly at No. 5 shaft.

Transvaal G.M. Estates

Central Mines: Tons crushed 13,050, yielding 8,356.109 ounces fine gold, valued at £34,980. Elandsdrift Mine: Tons crushed 665, yielding 784.090 ounces fine gold, valued at £3,313. Vaalhoek Mine: Tons crushed 1,465, yielding 594.039 ounces fine gold, valued at £2,491. Total value of month's output, £40,784. Total estimated profit for the month, £23,055.

The Albu Group.

The following information regarding the August operations of the producing mines of the Albu group is published:—

Company.	Stamps.	Tube Mills.	Tons Crushed.	Total Cost.
Aurora West	80	—	15,006	£14,212
Cinderella Consolidated ...	80	3	17,340	22,405
Meyer and Charlton	75	2	14,249	12,947
New Goch	120	4	29,329	22,653
Rodepoort United	50	3	29,277	27,060
Van Ryn	130	6	40,180	28,354
West Rand Consolidated ...	100	4	27,250	31,790
	635	22	172,631	£159,451

Company.	Cost per Ton.	Total Revenue.	Profit.
Aurora West	18/ 11/3	£18,319	£4,107
Cinderella Consolidated ...	25/ 10/1	22,744	18,339
Meyer and Charlton	18/ 2/1	31,919	18,672
New Goch	15/ 5/4	28,079	5,426
Rodepoort United	18/ 6/1	30,213	3,123
Van Ryn	14/ 1/4	52,357	24,003
West Rand Consolidated ...	23/ 3/9	39,801	8,011
		£223,432	£63,981

Cinderella Consolidated.—Mining operations were prejudiced during the first half of the month by the effect of the air-blasts which occurred in July. The stope faces affected have now been recovered, and the underground working conditions are again normal. The grade has been re-established, and it is anticipated that this will be reflected in a distinct improvement of the revenue and profit for the current month. Moreover, an increasing number of new stopes of good average grade will be available for attack from next month onwards.

Barnato Group.

The following are the results of operations for August on the producing mines of the Barnato group:—

COMPANY.	STAMPS.	TONS.	REVENUE.	PROFIT.
Consolidated Langlaagte ...	140	20,484	£31,786	£10,317
Ginsberg	80	14,653	21,543	7,327
Glencairn Main Reef	160	20,143	16,572	2,960
New Primrose	160	24,100	36,592	19,539
New Rietfontein	120	16,450	20,335	3,363
New Unified Main Reef ...	60	11,300	17,026	5,139
Quest	30	2,742	2,907	429
Witwatersrand	220	40,250	45,918	20,231

August totals ... 970 150,122 £192,679 £69,525

July totals ... 970 149,514 £189,954 £68,311

The monthly gross profits for 1912 are:—January, £59,227; February, £58,273; March, £61,223; April, £63,336; May, £66,133; June, £67,407; July, £68,311; August, £69,525.

Ceylon Lydenburg Output.

Tons crushed 769, yielding 538 ounces fine gold, valued at £2,229; estimated profit for the month, £1,553.

Glynn's Lydenburg.

Tons crushed 3,268, yielding 1,772 ounces fine gold, valued at £7,211; estimated profit for the month, £3,563.

Geological Notes on Claims Pegged for Aluminium near Selukwe.*

(By A. E. V. ZEALLEY, Geologist.)

THESE claims are situated in Impali Source farm on a ridge of high ground running roughly NNE.-SSW. about a quarter mile NW. of the dipping tanks near Sebenga Poort, Selukwe. The claims were pegged for aluminium in October, 1911, on ground occupied in part by the Warren Hastings Claims, where several shafts were sunk some ten years ago to search for gold in a long outcrop of quartz upon and around which were numerous ancient workings. This quartz body, which was probably a very quartzose pegmatite originally, lies in a gneissose granite, which is part of the large complex—the Impali Gneiss. A thin layer of red sandy clay occurs spasmodically over the rocks around. The casing of the quartz body is a kaolin-like material of dead white, yellowish or red colour. It has been found to contain a high percentage of alumina, and upon it several prospecting shafts have been sunk in order to ascertain its nature and extent. Several of these shafts I believe exceed 40 ft. in depth, and are still in the highly aluminous rock, which is, so far as exposed by the shafts, soft and very mealy, but coherent and possessing a well-marked schistose rodded structure. It is distinctly gritty to the touch, and small particles of quartz are plainly visible throughout those portions examined, but the bulk of the material consists of a very fine-grained, somewhat earthy-looking, white, crystalline mineral. Laterally the somewhat appears to grade imperceptibly into a highly sericitic gneissose rock which has the nature characteristic of the sheared portions of the Impali Gneiss, from which, there can be little doubt, the rock under discussion has been derived by alteration and replacement of the felspar. The body of aluminous rock is said to exceed 150ft. in width. An estimation of the aluminium contained in the rock made in Mr. G. Pingstone's laboratory, gave the following figures, which, by the courtesy of Mr. J. M. Harris and Mr. Pingstone, I am permitted to reproduce here: 6.84 per cent. Al_2O_3 soluble in HCl; 48.68 per cent. Al_2O_3 insoluble in HCl; total, 49.52 per cent. Al_2O_3 . The rock has an

argillaceous odour, and crumbles immediately upon adding water to a fine-grained mass, which, when lixiviated, gives rise to a small amount of milky liquid and coarse quartz grains, and a heavy crop of granular elongated particles composed largely of a mineral that is, when dry, white or partly transparent and glistening. A small amount of silvery white micaceous mineral, and, in the less pure form, a little iron oxide, are present. The white mineral in question appears to occupy some 75 per cent. of the whole rock (but owing to the presence of excessively fine-grained granular quartz, this estimate may be inaccurate). Its general appearance is against its being kaolin or mica. Under the microscope the powder of the rock is found to consist of cataclastic quartz and small aggregates of a fibrous or scaly mineral, the minute flakes of which are somewhat highly birefringent. The high alumina content of the rock, as shown by Mr. Pingstone's analysis, is evidence that the mineral is one very rich in aluminium; it cannot be a silicate, but probably is a hydrated oxide of aluminium—gibbsite (hydrargillite) which contains 65.1 per cent. of Al_2O_3 , or possibly diaspore, which contains 85 per cent. of Al_2O_3 . So far as its optical properties are ascertainable, the mineral seems to be hydrargillite, but it is difficult to identify in the condition it is in. A considerable proportion of the aluminium mineral or minerals present in the rock is soluble in sulphuric acid, and the material yields water on heating. The analysis quoted above shows that the rock contains as high a percentage of alumina as do many bauxites (aluminium ore), but it is doubtful whether a sufficiently large body of the material has been proved to exist, and whether it is of the requisite grade to render it at present of commercial value for the manufacture of aluminium or for any other purpose for which alumina is now used. If the material is found to be present in a sufficiently large amount then its possible use for other purposes than cement manufacture would depend upon whether an inexpensive process could be devised for the removal of the large amount of quartz contained. If the material were used as an ingredient in the manufacture of cement the difficulty then arises, as indicated above, that the aluminium is almost certainly present in the form of hydrated aluminium oxide and not as aluminium silicate, and it is necessary in the manufacture of cement that the alumina be combined with silica and lime in the finished product. Hence in this instance it would probably be necessary to grind finely and prove that the silica in the ingredients of manufacture be in proportion to the alumina and iron as exceeding two-and-a-half to one, and that sufficient alkali is present in order to bring the silica into combination with the alumina and lime. If the silica were not present in sufficiently high proportion then it would be necessary to use a siliceous limestone as the other ingredient of the cement.

*Reprinted from the Report of the Director of the Geological Survey, 1911.

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The Week's Company Meetings.

TREASURY GOLD MINES.

Joint Working with Jumpers.

Year's Result.

The fifteenth ordinary general meeting of shareholders in the Treasury Gold Mines, Ltd., was held in the board-room, Cullinan Buildings, last week. Mr. W. H. Dawe presided, and among those present were Messrs. H. W. Anderson, J. Jourdan, W. H. B. Frank, A. G. Gill, and the secretary, H. G. L. Panchaud.

Chairman's Speech.

The Chairman, in moving the adoption of the reports and accounts, said: It has been customary to hold the annual meetings of your company in the month of June of each year, but in order to enable European shareholders to consider the reports and accounts before sending their proxies it was decided recently, at a special general meeting of shareholders, that the annual meetings should be held in August.

The result of the year's joint working with the Jumpers Co. was a profit of £3,852 2s. 8d., after deducting administration expenses. I must point out, however, that this does not represent the actual profit earned, as in the terms of the working agreement with the Jumpers Gold Mining Co., Ltd., that company has to set aside £400 monthly out of its share of profits until your company's share of profits amounted to £33,500. Should your company's share of profits—at the termination of the agreement—not amount to the sum mentioned, the funds set aside by the Jumpers Company will be used to make up this deficiency as far as possible; up to the 31st of March last these funds amounted to £6,558. Unfortunately the result of the joint working has not come up to expectations, and, as you will see from the consulting engineer's report, the average grade of the ore milled was adversely affected by a shortage of ore from the Jumpers property. The fact that a smaller tonnage has been milled than was expected has had the effect of increasing the working costs. One point, however, must be borne in mind—which is, that though the actual results of working have not come up to expectation, it is highly probable that better results could have been obtained had the two companies continued to work independently, or account of the difficulties which have to be overcome when mining properties nearly approach the end of their profit-earning existence.

Caved Areas.

Your consulting engineer mentions that "there apparently remains in both mines a considerable tonnage which may be profitably extracted, but the difficulties attending the working of the remnants of blocks in caved areas, which exist over practically the whole of both mines, may necessitate the cessation of operations at any time. Up to the present no considerable tonnage has been abandoned, except on account of low values; and, unless further disappointments are encountered, small profits may be obtained for perhaps a further twelve months." Needless to say, work will be continued as long as we can do so at a profit and with safety to the underground employees.

Financial Position.

With regard to the financial position, the balance unappropriated at the 31st of March, 1911 less amount standing to profits reserve account was £78,793 8s. 1d., to which must be added the profit on the joint working for the year, including interest, etc., amounting

to £8,873 16s. 6d., making a total of £87,667 4s. 7d., from which amount must be deducted audit fees, Government tax on profits, French Fiscal duties, income tax, amounts written off livestock, etc., £1,048 7s., leaving a net balance to be carried forward of £86,618 17s. 7d.

In view of the smaller profits your directors arranged for a reduction of all administrative expenses, including directors' fees.

In June your directors declared a dividend of 10s. per share. Special reference was made at the last annual meeting to the question of making a distribution of the cash then at the disposal of the company. At the time the board considered that it would be wiser to retain the money and take advantage of any favourable opportunity which might have occurred to employ the funds to advantage, or making a substantial final distribution—unless shareholders generally preferred an immediate distribution. Subsequently, a number of shareholders expressed a wish that a distribution should be made, and this resulted in the declaration referred to.

You will notice from the accounts that we took a small participation in the farm Thuiszindoorn, situated in the Potchefstroom District, as we had favourable reports from a neighbouring property, but subsequent developments did not prove satisfactory, and the interest was consequently abandoned; the expenditure incurred was quite nominal.

The reports and accounts were adopted without discussion.

The retiring directors were re-elected, while the auditors, Messrs. E. Danckwerts and Charles Stuart, were reappointed.

NEW GOLD VENTURE.

Annual Meeting.

The seventh ordinary general meeting of shareholders in the New Gold Venture Syndicate, Ltd., was held in the board room, National Bank Buildings on Sept. 4.

Mr. W. Dalrymple occupied the chair, and those present included Messrs. G. W. Higgins, G. R. Airth, W. J. Gau, Grant Fallows, L. S. Raymond (acting secretary), E. H. Read, G. W. Austin and P. Ross Frames.

The Chairman's Speech.

The Chairman, in moving the adoption of the reports and accounts, said: The accounts present no special feature with the exception that the work of the Abelskop Gold Mines, Ltd., which company, you will recollect, holds an agreement for the tributing of the property, has resulted in a slight reduction of the loan and also of the item general expenditure appearing on the balance sheet. At the 31st of May, 1912, the loan together with accrued interest amounted to £21,595, while the interest and royalty due from the Abelskop Gold Mines, Ltd., for the year exceeded the general expenditure by £431. You will doubtless recollect that in December, 1907, the lenders to this syndicate of some £20,000 wrote to the syndicate calling for the immediate repayment of this loan. This

would have necessitated the placing of the syndicate in liquidation, and steps to this end were about to be taken when Mr. F. R. Arundale came forward on behalf of himself and certain friends in Kimberley, with a request that they should be given time in which to bring forward certain proposals they wished to make for the tributing of the syndicate's property. These proposals received the consent of the lenders who did not then press further for the repayment of the loan, and, in due course, the lease of the mineral rights of your syndicate's property was entered into with the Abelskop Gold Mines, Limited. It is to be regretted that the operations of the tributing company have not proved successful.

Abelskop Company.

During last year your board met a deputation from the Abelskop Company with the object of assisting them as far as possible, and it was then agreed, under certain conditions, that this syndicate would suspend its claim for royalty for a matter of six months in order to assist the Abelskop Company, as they were about to make certain additions to plant and were badly in need of funds to do so. Certain modifications in the lease, which were referred to by me at our last meeting, were also discussed, and we had almost reached the point when a meeting of this syndicate would be necessary to consider the proposals for these alterations when notification was received that the Abelskop Company had placed itself in voluntary liquidation, and steps were immediately taken to protect this syndicate's interests. A liquidator has been appointed, and your syndicate has filed its claim both for interest and royalty due prior to the commencement of the winding up of the Abelskop Gold Mines, Limited, and for interest from that date. The total amount of the indebtedness of the Abelskop Company to your syndicate at the 31st of August, 1912, was £1,037 2s. 1d.

The reports and accounts were adopted.

The retiring directors, Messrs. W. Dalrymple, G. W. Higgins, L. Herz and G. H. Bonas, were re-elected, while the auditors were also reappointed.

ANGLO-FRENCH LAND.

Annual Meeting.

Mr. W. Dalrymple presided at the fourteenth ordinary general meeting of shareholders in the Anglo-French Land Company of the Transvaal, Ltd., held in the board room, National Bank Building, on Sept. 4. Among those present were Messrs. G. R. Airth, W. J. Gau, F. H. Read, L. S. Raymond (acting secretary), and G. W. Austin (treasurer).

The Chairman's Speech.

In moving the adoption of the reports and accounts, the Chairman said: During the year the revenue from all sources amounted to £659, while the expenditure, including an

amount of £240 spent on prospecting, amounted to £988, resulting in a net loss of £329. From the balance sheet it will be seen that a sum of £19 was paid for the year in survey fees, and that fencing accounted for £127, being our proportion of certain fences erected by holders of adjoining farms, and the cost of the buildings on farm "Goedgedacht" No. 225, which were taken over at the termination of the lease, amounted to £75. I may here mention that this farm was immediately re-let on considerably improved terms. You will notice from the report of the directors that all your farms are now surveyed. The total holding of the company amounts to 86,773 morgen 500 square rods, together with five erven in the townships of Ermelo, Standerton and Lichtenberg.

Last year we reported the sale of one of these erven in Ermelo. The sale had, however, to be cancelled owing to the inability of the purchasers to meet the purchase price.

Diamondiferous Soil.

In view of the proximity of your farm "Eerste Geluk" to the Bloemhof alluvial diamond diggings it was

thought desirable to have the farm thoroughly prospected, and with this in view Mr. J. L. van Zyl was engaged and spent some weeks putting down potholes in likely spots over its whole area. While the soil on the farm is undoubtedly diamondiferous, I regret to say that negative results only were obtained. Owing to the failure of the settlement of Hereros on farm Groenfontein and the difficulty of persuading the natives to work on the mines, the Government decided to break up the settlement, and at the beginning of the present calendar year the natives were ordered to leave the farm. As a result your company has obtained the consent of the Government to cancel their lease of the farm.

Protection of the Farms.

During the year the grazing rights of the farm Klipplaatdrift were let for a nominal amount, the lessee undertaking the protection of the timber and general caretaking of the farm. In the absence of a tenant who will pay a higher figure it is felt that this means of ensuring some protection to your farms is desirable, as, in outlying districts, reports continually come in

of the damage done by irresponsible persons both to the timber and the game on the farms. Your company still continues to be a member of the Transvaal Land Owners' Association, which, under the energetic secretaryship of Mr. H. A. Bailly, does much excellent work for its members. With the exception of the alluvial diamond rush at Bloemhof, which resulted in the prospecting of your farm Eerste Geluk, to which I have referred above, no discoveries of minerals or precious stones in the neighbourhood of your holdings have come to the notice of your board during the year. During the year Sir George Farrar retired from the board, and Mr. C. R. Pinder was elected in his place. Mr. W. H. Dawe also resigned, and has been replaced by Mr. A. G. Gill.

The reports and accounts were adopted without discussion.

The appointments of Messrs. C. R. Pinder and A. G. Gill as directors of the company in place of Sir George Farrar, Bart., and Mr. W. H. Dawe (resigned), were confirmed, and the retiring directors were re-elected.

Messrs. F. W. Diamond and C. L. Andersson and Co. were reappointed auditors for the ensuing year.

New Patents.

415. James John Preece.—Improvements in apparatus for raising automobiles.
416. Roderick Korneli Biernacki.—Improvements in axle boxes for railway and tramway rolling stock.
417. Robert Alexander Sloane and John Edward Lloyd Barnes.—Improvements in or applicable to cigarette-making machinery.
418. Anders Lawritz Marthinussen.—Improvements in or relating to depth indicators for hoists and the like.
419. Markus Andersen.—Rail-joint.
420. William Thomas Phillips and William Henry Phillips.—An improved lock nut.
421. Henry Leitner.—Improvements in variable speed dynamos.
422. Henry Lietner.—Improvements in means for regulating electric lamp circuits.
423. John Godfrey Parry Thomas.—Improvements in and connected with winding apparatus and the like.
424. Nicolas Henri Marie Dekker.—Improvements in or relating to the treatment of ores.
425. Edward Stanislaus Louis.—Improvements in or relating to power transmission devices.
426. Edward Henry Woodman and John Edward Stone.—Self-oiling idlers or rollers.
427. Hermann Schwabacher.—Improvements in and relating to carburetors, more especially for use in air gas apparatus.
428. Niels Johan Sundin.—Reversible self-adjustable and self-lubricating bracket ball bearing.
429. Denis Francis Breslin.—Improvements in atometers.
430. William Bruce Paterson.—Improvements in spraying devices for allaying dust in mine workings.
431. Charles Cheers Wakefield.—Improvements in or relating to lubricators.
432. Alfred Henry Kidney.—Improvements in dry ore concentrators.
433. John Edward Hossack.—Improved pump for pneumatic tyres.
434. Charles Henry Augustus and Frederick Lockhart Ross.—Improvements in bullets.
435. Charles Creed Whitfield Eddels.—Improvements in adjustable fastenings for leggings, gaiters, boots, surgical appliances, belts and the like, and applicable for attaching leggings to boots.
436. Charles Edward Bennington.—Improved ambulance dividing sheet.
437. Samuel Thomas Tregaskis.—Improvements in furnaces for heating rock drills.
438. Oliver Harrison and John Robert Pratt.—Improvements in means for controlling the underflow from classifiers and the like.
439. Robert Lloyd Mann.—Improvements applicable to drills, drill bits, picks and other edge or pointed tools and the like.
440. Nils Testrup and Olof Soderlund.—Improvements in and relating to evaporation, distillation and similar operations.
441. James Gordon and John R. Archer.—Improved scale cleaner for water tube boilers or like.
442. Herbert Charles Rowlands.—Improvements in railway sleepers.

443. John George Robinson.—Improvements in and relating to steam superheaters for locomotive and other smoke tube boilers.
444. Edward Henry Woodman and John Edward Stone.—Self-oiling roller or idler.
445. Daniel Ready.—A device for the prevention of miners contracting miners' phthisis.
446. Vernon Hope.—Improvements in fusible cut-outs for controlling electric circuits.
447. Harold Dunsterville Bam.—Improved automatic safety coupling for railway and other vehicles.
448. William Lippiatt.—Improvements in couplings for railway vehicles.
449. Andrew Brander and Arthur Henry Naude.—Magnetic gravity stamp for crushing ores.
450. Henry Thomas Hall.—Improvements in means for sub-soiling with explosives.
451. Oswald Silberrad.—Improvements in explosives.
452. Alexander Frederick Jenkins.—Acetylene gas generating systems.
453. Johannes Harden and Electric Furnaces and Smelters, Limited.—Improvements in and relating to the production of metals from ores by reduction.

INVESTORS' DIARY.

The following company meetings have been announced:—

- Sept. 20.—Transvaal G.M. Estates; Swaziland Tin.
 Sept. 21.—Wit. Deep.
 Sept. 23.—Crown Mines.
 Sept. 27.—Sub-Nigel; Simmer and Jack Prop.; New Kleinfontein; Wolluter, G.M.
 Oct. 19.—Wolluter, G.M.
 Oct. 23.—Johannesburg Consolidated Investment Co.
 Oct. 29.—Jumpers G.M. Co.
 Oct. 30.—Rooberg Minerals.
 Nov. 6.—New Modderfontein.
 Nov. 27.—New Boksburg G.M.; Rand Klip.

TO CONTRIBUTORS.

The Editor invites Contributions on any subject of interest relating to mining and other industries of South and Central Africa, as also of suitable non-copyright photographs or snapshots of mining or engineering interest. Subject to special arrangement, the scale of remuneration for all articles inserted is at the rate of Two Guineas per page, and 5/- for every photograph. No responsibility can be accepted for safe transmission, but anything that may be submitted that is not accepted will be returned if a stamped and directed envelope is enclosed for the purpose.

A copy of this Prospectus has been lodged for registration with the Registrar of Companies, Pretoria, as required by Section 78 of the Companies Act, 1909 (Transvaal).

The Subscription List will be opened on 9th September, 1912, and closed on or before 13th September, 1912, for the Public and for Shareholders of this Company and of the Rand Mines, Limited.

CROWN MINES, Ltd.

(Incorporated in the Transvaal.)

CAPITAL - - - £1,000,000.

In 2,000,000 Shares of 10s. each, of which 1,880,212 Shares are issued, and are fully paid.

Trustees for the Debenture Holders:

Rt. Hon. LORD HARRIS, G.C.S.I., G.C.I.E., 8, Old Jewry, London, E.C.

FRIEDRICH ECKSTEIN, 1, London Wall Buildings, London, E.C.

Directors:

SAMUEL EVANS (*Chairman and Managing Director*).

H. C. BOYD. E. J. RENAUD.

F. D. P. CHAPLIN. H. A. ROGERS.

D. CHRISTOPHERSON. R. W. SCHUMACHER.

W. H. DAWE. E. A. WALLERS.

London Committee:

F. ECKSTEIN. C. RUPE.

L. WAGNER. J. PRINSEP.

Hon. EUSTACE FIENNES, M.P.

Auditors:

C. L. ANDERSSON & CO., Incorporated Accountants, Johannesburg.

HOWARD PIM, Chartered Accountant, Johannesburg.

Secretaries:

London Secretary:

RAND MINES, LIMITED. ANDREW MOIR.

Head Office: THE CORNER HOUSE, JOHANNESBURG.

London Office: No. 1, LONDON WALL BUILDINGS, E.C.

DEBENTURE PROSPECTUS.

Issue of £1,000,000 Five per cent. First Mortgage Debentures to Bearer, at £97 10s. per cent., payable as follows:

£10 0s. per cent on Application.
£40 0s. per cent on Allotment.
£47 10s. per cent. on 16th October, 1912.

£97 10s.

The Debentures are secured by a Trust Deed constituting (1) a first specific charge on Mining Claims and Mijnpachts in the Witwatersrand Mining District, Transvaal, equal to 2,216.59 full Mining Claims, and the Freehold portions of certain farms in extent 3,040 morgen 4 square rods (excepting the Freehold Townships Ophirton and Booyen Reserve, in extent 92 morgen 365 square rods) with the right to the Company to release 10 per cent. of the same from the security; and (2) a floating charge on all the other assets and the general undertaking of the Company (excluding uncalled capital and the undermining rights in respect of certain 5,2778 claims held by the Company under Agreement with the Government of the Union of South Africa) within the meaning of § 52 of the Precious and Base Metals Act, 1908 (Transvaal).

The Debentures will be redeemed at £103 per cent. by eleven annual drawings of £85,000 each—the first repayment to be made on 1st January, 1915—and a final instalment of £65,000 payable on 1st January, 1926, but the Company reserves to itself the right to purchase the whole or any part of the Debentures in the open market or otherwise at any time at or below £103 per cent. (plus accrued interest) or to redeem the whole or (by drawings) any part of the Debentures at £105 per cent. at any time after having given three months' notice of its intention so to do; and to treat any Debentures so purchased or paid off in satisfaction *pro tanto* of its obligation to make any annual drawing or drawings.

The Debentures will be to Bearer, and will be issued in amounts of £50, £100 and £500 each.

Interest will be payable in London and Johannesburg on 1st January and 1st July in each year, the first Coupon, payable on 1st January, 1913, being for interest calculated upon the amounts payable on application and allotment from the date of allotment, and on the final instalment from 16th October, 1912.

The proceeds of this issue will be used to liquidate the Company's indebtedness to the Rand Mines, Limited, and The Central Mining and Investment Corporation, Limited, amounting, on 29th February, 1912, to approximately £814,700, and to meet further Capital Expenditure.

The nominal Capital of the Company is £1,000,000 in 2,000,000 shares of 10s. each, of which, 1,880,212 have been issued and are fully paid, leaving 119,788 shares in reserve.

On 15th August, 1912, the middle closing price on the London Stock Exchange of the shares was £6 15s. 0d., ex. div., making a market valuation of the issued capital of the Company of £12,691,431.

The net profits of the Company since the date of the amalgamation (1st July, 1909) have been as follows:

6 months ended 31st December, 1909	£651,743 11 3
12 months ended 31st December, 1910	£1,214,178 3 5
12 months ended 31st December, 1911	£1,261,345 8 7
6 months ended 30th June, 1912	£650,966 15 4
	*estimated.

The amount required for the service of this issue cannot at any time exceed £137,550 per annum, made up as follows:—As to £50,000 Interest and £87,550 Payment on account of redemption beginning 1st January, 1915.

Copies of the Accounts, Directors' Report and Consulting Engineer's Report, to 31st December, 1911, and of the Chairman's Speech at the adjourned Annual Meeting, held in Johannesburg on 23rd May, 1912, may be inspected at the Head Office or the London Office of the Company.

Preference in the allotment will be given to Shareholders of the Company and Shareholders of the Rand Mines, Limited, registered on the books of the respective Companies on 30th August, 1912, and to Holders of Share Warrants to Bearer of both Companies. Holders of Share Warrants to Bearer of the respective Companies should state on the back of the application form the distinctive numbers of the Bearer Warrants held by them.

Where no allotment is made the deposit will be returned in full, and in case of partial allotment the surplus will be applied to the payment due on allotment, and any excess will be returned to the applicant.

Payment in full may be made on allotment under discount at the rate of 3 per cent. per annum.

Failure to pay any instalment when due will render the allotment liable to cancellation and the amounts previously paid to forfeiture.

Application for a Special Settlement in the Debentures will be made in due course to the Committee of the London Stock Exchange.

Applications should be made on the form enclosed herewith and forwarded to the National Bank of South Africa, Limited, Johannesburg, or to the London Office of the Company, with £10 per cent. deposit on the Debentures applied for.

Prospectuses and forms of application can be obtained from the Company's Offices in Johannesburg and London.

A brokerage of 1 per cent. will be paid on allotments in response to applications bearing stamps of Brokers and Bankers.

The following are the particulars of the Contracts entered into by the Company, given in compliance with Section 79, Sub-section 1, of the Transvaal Companies Act, 1909, paragraphs c to h and j whereof do not apply to this Prospectus:—

Trust Deed, dated 31st August, 1912, between the Company and the Rt. Hon. Lord Harris and Friedrich Eckstein (as Trustees).

Agreement, dated 30th May, 1912, between the Company and The Central Mining and Investment Corporation, Limited, and the Rand Mines, Limited, whereby those Companies underwrite the whole of the issue at £97 10s. per cent. for a commission of 3 per cent.

Agreement between the Robinson Gold Mining Company, Limited, and this Company, relating to an exchange of certain mining rights, as evidenced by a joint letter dated 8th February, 1912, addressed to the Government Mining Engineer, Johannesburg.

Deed of Lease, dated 14th March, 1912, between this Company and the Wesleyan Methodist Missionary Trust Association Memorandum of Agreement, dated 21st October 1911, between the Rand Mines Power Supply Co., Ltd., and this Company Agreement dated 11th December, 1911, between the Langhaate Estate and Gold Mining Company, Limited, and this Company.

Agreement between the Langhaate Estate and Gold Mining Company, Limited, and this Company relating to an exchange of certain mining rights, as evidenced by a joint letter dated 13th February, 1912, to the Government Mining Engineer, Johannesburg.

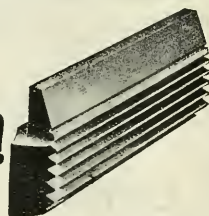
Agreement dated 4th February, 1912, between this Company and the Robinson Gold Mining Company, Limited.

Copies of these Contracts may be inspected at the Head Office or London Office, of the Company, between 11 and 1 on any ordinary day of business, Saturdays excepted.

The Debentures will be ready for delivery, against Allotment Letters, after 20th December, 1912
13th August, 1912.

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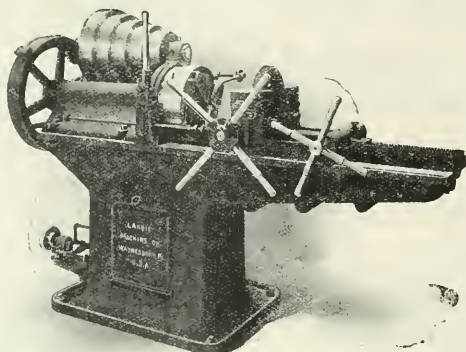


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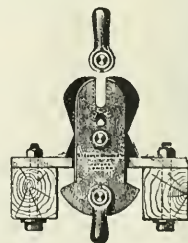
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BULLION MELTERS and REFINERS.

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No Water-softening Plant required.

Smith's Improved Boiler Composition is a powder, which, when
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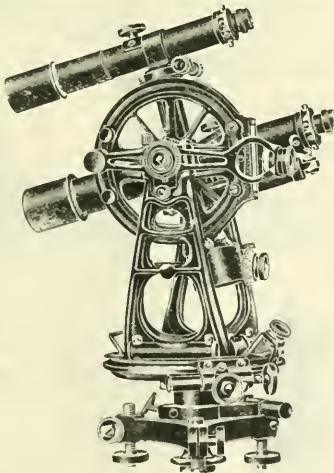
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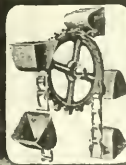
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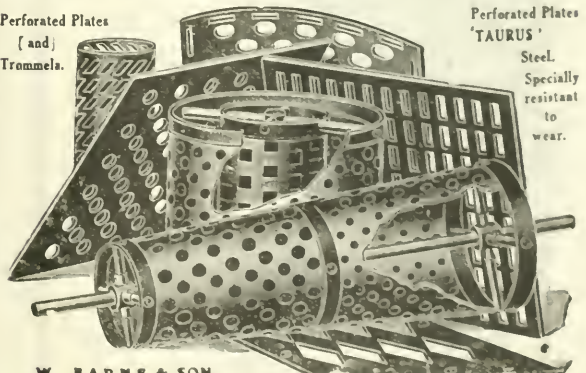
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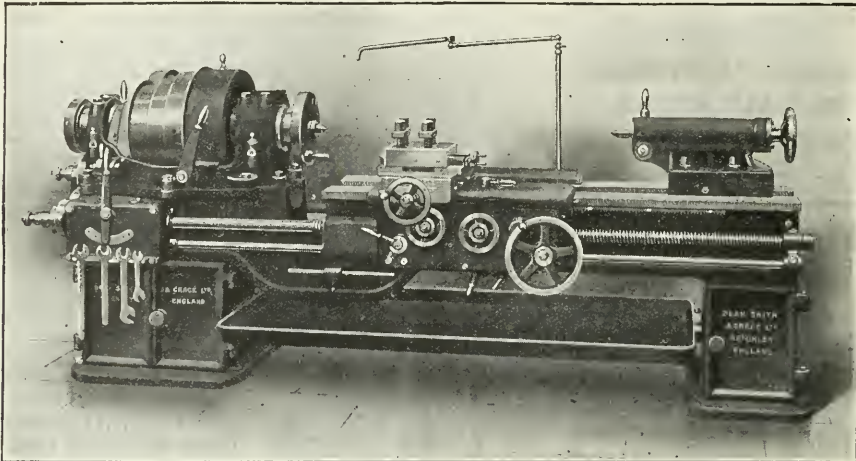
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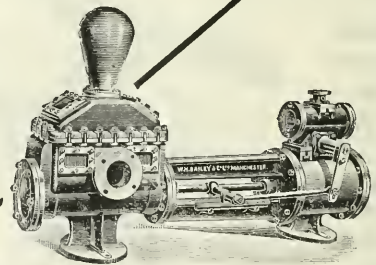


Fig. 1D.—"Davidson" Boiler Feed Pump.
For any Pressure with Pistons or Rams.

BAILEY'S "DAVIDSON" PATENT

STEAM PUMP

OF HIGHEST ECONOMY.
HOLDS THE RECORD FOR DURABILITY.

Uses 50 per cent. less Steam than Ordinary
Pumps. Absolutely Positive in Action.
Horizontal or Vertical.

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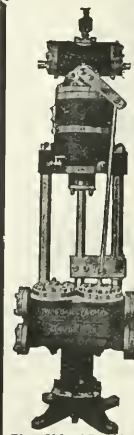


Fig. 50D.—"Davidson"
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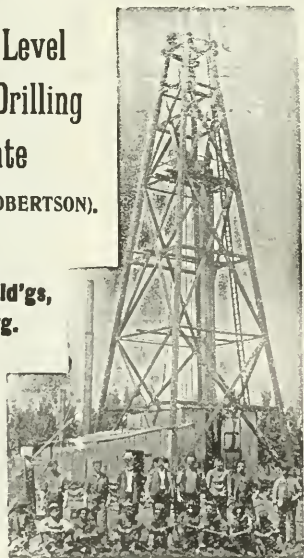
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Contracts undertaken to Bore to any
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FOR SALE IN ONE LOT,
 WITHOUT RESERVE. WITHOUT RESERVE.

The Well-Known Simmer and Jack East Mine.

Consisting of the Following Claims and Mynpachts,
 with Buildings, Machinery, Plant, etc.

65 PROSPECTING CLAIMS | Situated on the Farms
 166 DIGGERS CLAIMS | "Driefontein," No. 12 &
 | "Elandsfontein," No. 11

Two Mynpachts on the farm "Driefontein," No. 12 and
 in Area 57 Morgen, 17 Square Roods.

Portion of Mynpacht, No. 302/95 on the Farm
 "Elandsfontein, No. 11, and in Extent 10 Morgen,
 268 Square Roods, 56 Square Feet.

THE undersigned, duly favoured with instructions from
 the Liquidators of the SIMMER & JACK EAST,
 LTD. (In Liquidation), will Sell,

On Thursday, 26th of September, 1912,
 AT 11 A.M.

At the Old Mart, 112, Commissioner-st., Johannesburg.

All the Assets in the Transvaal (except cash) of the
 above Company, consisting of the Claims and Mynpachts,
 as mentioned above, together with all buildings, machi-
 nery, plant, stores, etc., and Shares, as follows:—

BUILDINGS.

Offices, Officials' Houses, Married Quarters, Single
 Men's Quarters. Boarding House, two large Compounds
 for Natives, equipped with Hospital and every conveni-
 ence. Stores, Magazines, Machine Shops, Compressor
 House, Engine Rooms, Boiler House, Changing and Dry-
 ing Rooms, etc., etc.

MACHINERY AND PLANT

4 Hauling Engines, 3 Underground Hauling Engines,
 16 Boilers and 5 Boilers not in use, 3 Compressors, Rock
 Drill Plant, 2 Head Gears with Ore Bins and Chutes,
 Electric Light and Power Plant, Winches, Hoists, Pumps,
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 Engines.

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A large quantity of Stores of every kind necessary
 for a Fully-equipped Mine; also a number of Spare Parts
 for Machinery, Tools, etc.

BATTERY AND REDUCTION PLANT.

The SIMMER & JACK EAST'S Share in the Joint
 Ore Reduction Plant on the Knight's Deep property. This
 Plant consists of:—400 Stamp Battery and Milling Plant,
 Power Plant, Boiler Plant, Tube Milling Plant, Return
 Water Service, Sands Plant, Slime Plant, Precipitation Plant,
 Refinery Plant, Water Cooling and Circulating Service,
 Combined Pumping Plant, Water Cooling Arrangements,
 Electric Power Plant.

SHARES.

200 Shares in the Rose Deep, Limited.

727 Shares in the Witwatersrand Native Labour
 Association.

Share or Interest in the Consolidated Gold Fields
 Native Labour Organization.

The SIMMER & JACK EAST Gold Mine is only a
 few minutes' walk from Germiston Railway Station, and
 is one of the most important Mining Properties ever sub-
 mitted to Public Auction in Johannesburg.

**The Sale will be WITHOUT RESERVE in One Lot
 to the Highest Bidder.**

TERMS.

Cash; or the Buyer will have the option to pay in two
 instalments—one-third on day of sale, and two-thirds on
 the 27th January, 1913, for which Promissory Notes may
 be required by the Sellers.

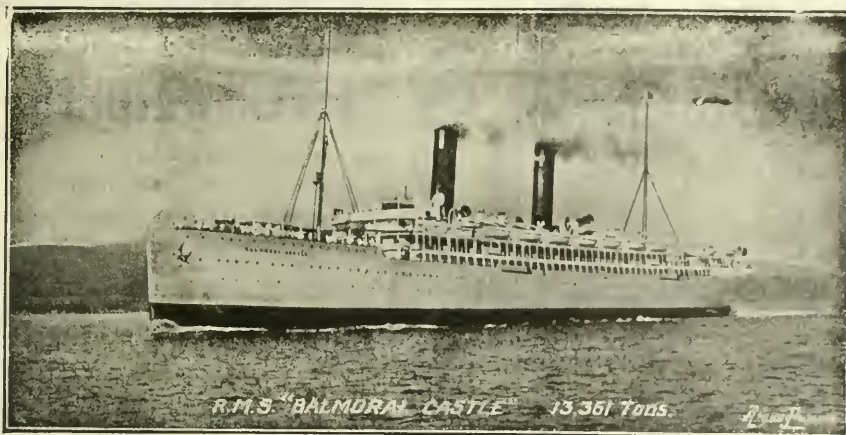
Possession to be taken on the 1st OCTOBER, 1912,
 until which date the property will be worked for the
 benefit of the Sellers.

Transfer to be passed on payment in full of purchase
 price,

RICHARD CURRIE,

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EAST COAST SERVICE.—Monthly sailings homewards via East Coast Ports and the Suez Canal, calling at Delagoa Bay, Beira, Chinde, Mozambique, Port Amelia, Zanzibar, Mombasa (Kilindini), Aden, Port Sudan, Suez, Port Said, Naples, Marseilles, and Gibraltar for London. This service both outwards and home-

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THE BUTTERS' PROCESS INCREASES PROFITS
with the result that THREE MORE Large Plants
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Randfontein Central G.M. Co., Ltd., Pumping Plant	for 1,500 tons per day.
Van Ryn Deep, Ltd., Gravity Plant	900 " "
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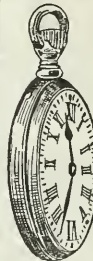
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For the sum of
Five Shillings
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 complete in case,
 with an extra double-
 edged blade.

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**THIS
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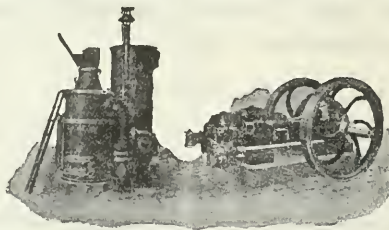
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All Classes Flanged and Screwed Joints.

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Treasury Gold Mines, Limited.

(Incorporated in the Transvaal.)

DIRECTORS' REPORT

For the Year ended 31st March, 1912.

Submitted at the Fifteenth Ordinary General Meeting of Shareholders, convened for Friday, the 30th August, 1912, at 11 a.m., in the Company's Board Room, Cullinan Building, Johannesburg.

To the Shareholders,

TREASURY GOLD MINES, LIMITED.

Gentlemen,—Your Directors beg to submit their Report, accompanied by the Report of the Consulting Engineer and the Financial Statements, showing the Company's position as at 31st March, 1912.

PROPERTY.

No change has taken place in your Company's property holding since the last General Meeting.

MINING OPERATIONS:

In accordance with the agreement entered into between this Company and Jumpers Gold Mining Company, Ltd., in 1910, the ore of both Mines has been mined and treated by the latter Company.

FINANCIAL:

The Appropriation Account may be summarised as follows:—
Credit balance brought forward from last year ... £80,328 12 0
Less amount of Profits Reserve Account included as profit in statements to 31st March, 1911... .. 1,535 3 11

£78,793 8 1
Profit on Joint Working with Jumpers G.M. Co., Ltd., for the year, less Administration Expenses 5,832 2 8
Rebate of Freight on Gold, Rent, Interest, etc. ... 3,041 13 10
£87,667 4 7

From which have to be deducted:—
Auditors' Fees... .. £210 0 0
Government Tax on Profits, being further payment due to Oct. 31, 1910 209 8 0
French Fiscal Duties 172 3 2
Income Tax paid in London 90 13 7
Amounts written off on account of Livestock, Vehicles and Harness, etc. 366 2 3
1,048 7 0

Leaving a balance to be carried forward of... .. £86,618 17 7

It will be noticed that this profit derived from the Joint Working during the year under review amounted to £5,832 2s. 8d., after deducting the Administration Expenses. It must, however, be borne in mind that this sum does not represent the actual profit earned, as in terms of the Working Agreement with the Jumpers Gold Mining Co., Ltd., that Company has to set aside monthly £400, out of its share of the profits until this Company's share of profits amounts to £53,500. If upon the termination of the agreement, the Treasury profits have not amounted to £53,500, the sums so set aside by the Jumpers Company will be devoted to make up this deficiency in so far as they go.

The sum set aside for this purpose at 31st March, 1912, amounted to £6,800.

As the Company's share of the profits from the joint working with the Jumpers Company has been smaller than was anticipated, it was decided to effect a considerable reduction in the Administration Expenses, this reduction applying to the Directors' Fees, as well as to the remuneration of the Consulting Engineer and Secretary.

Capital Expenditure to the extent of £1,259 7s. 10d. was incurred during the financial year, in connection with the Joint Operations. On the other hand, sales of Buildings, Machinery and Plant, Livestock, Vehicles and Harness, and Witwatersrand Native Labour Shares realised £1,872 6s. 3d., whilst £329 17s. 1d. were written off Livestock, Vehicles and Harness Account.

ANNUAL GENERAL MEETINGS:

To enable European shareholders to receive and consider the Annual Reports and Accounts, before issuing their proxies for representation at the Annual General Meetings, your Directors decided to hold these in future during the month of August. To carry this policy into effect an Extraordinary General Meeting of Shareholders was held recently, when the necessary alterations to the Company's Articles of Association were made.

DIRECTORATE:

You will be asked to confirm the appointment of Mr. E. J. Renaud as a Director of the Company, in the place of Mr. H. O'Kelly Webber, resigned.

In accordance with the Company's Articles of Association, all members of your Board retire from office, but, being eligible, they offer themselves for re-election.

The retiring Directors are Messrs. W. H. Dawe, C. S. Goldmann, J. Friedlander, J. Andrew Cohen, E. J. Renaud, A. G. Gill and W. H. B. Frank.

AUDITORS:

You will be asked to confirm the appointment of Mr. Charles Stuart as an Auditor of the Company, in place of Messrs. Ball and Stuart, resigned.

You will be asked to fix the remuneration of the Auditors for past services, and to appoint Auditors for the current year. Mr. E. Danckwerts and Mr. Charles Stuart retire, but, being eligible, offer themselves for reappointment.

We are, Gentlemen,

Obediently yours,

W. H. DAWE, Chairman,

H. W. ANDERSON,

O. SCHEUERMANN,

E. J. RENAUD,

J. ANDREW COHEN,

A. G. GILL,

W. H. B. FRANK.

Directors.

Johannesburg, 4th June, 1912.

The Treasury Gold Mines, Limited—continued.

Dr.	Balance Sheet, 31st March, 1912.	Cr.	
To Capital— 135,000 shares at £4 sterling each	£540,000 0 0	By Property— Mining Claims, etc.	£461,289 1 4
„ Funds Transferred from Appropriation Account— As per last Account	108,804 15 9	„ Buildings	23,049 9 6
	£648,804 15 9	„ Machinery and Plant	112,395 3 6
„ Creditors— To Debentures drawn and unpaid	£10 6 0	„ Capital Expenditure in connection with Joint Operations	1,259 7 10
Debiture Interest and Dividends unpaid	54 17 10	„ Main Shaft No. 1	£34,181 0 3
On Current Account	134 6 9	„ Main Shaft No. 2	11,086 2 8
	199 10 7	„ General Surface Works and Dams	1,567 12 6
„ Reserve Account— Company's proportion of Joint Gold and Profits Reserve with Jumpers G.M. Co., Ltd.	1,518 13 4	„ Furniture	483 9 7
„ Balance— Appropriation Account	86,618 17 7	„ Shares— W.N.L.A., Ltd.: 212 shares, 12s. paid and 25s. per share deposit	392 4 0
Contingent Liabilities on Shares— Witwatersrand Native Labour Association, Ltd: 212 shares at 8s. per share	£84 16 0		£645,703 11 2
	£737,141 17 3	„ Bearer Share Warrants	293 0 6
		„ Sundry Debtors (including sums due at termination of Working Agreement)	5,574 8 3
		„ Stores on Hand	8 18 11
		„ Cash— Current Account, Johannesburg ...	3,697 7 11
		Current Account, London	299 6 8
		Deposits, Fixed and at Call	81,500 0 0
		Debiture and Dividend Accounts	65 3 10
			85,561 18 5
			£737,141 17 3

H. G. L. PANCHAUD, Secretary.

W. H. DAWE, Chairman,
E. J. RENAUD,
H. W. ANDERSON,

Directors.

To the Shareholders, TREASURY GOLD MINES, LTD.

We report that we have examined the above Balance Sheet with the Books and Vouchers of the Company from the 1st April, 1911, to the 31st March, 1912, and have obtained all the information and explanations we have required as Auditors. In our opinion such Balance Sheet is properly drawn up so as to exhibit a true and correct view of the Company's affairs, according to the best of our information and explanations given to us, and as shown by the Books of the Company.

E. DANCKWERTS,
Incorporated Accountant (Eng.),
CHARLES STUART,
Chartered Accountant, Auditors.

Johannesburg, 21st May, 1912.

Dr.	Appropriation Account, 31st March, 1912.		Cr.
To Auditors' Fees— For year ended March 31, 1911...	£210	0 0	
„ Government Tax on Profits— Further payment due to October 31, 1910	209	8 0	
	419	8 0	
„ French Fiscal Duties	172	3 2	
„ Income Tax paid in London	90	13 7	
„ Amounts written off— Expenditure in connection with Sherwood Block Venture	5	1 11	
Expenditure in connection with Thijszjindoorns Venture	31	3 3	
Livestock, Vehicles and Harness	329	17 1	
	366	2 3	
„ Balance— To Balance Sheet	86,618	17 7	
	£87,667	4 7	
</			

H. G. L. PANCHAUD, Secretary.

W. H. DAWE, Chairman,
E. J. RENAUD,
H. W. ANDERSON,

Directors.

E. DANCKWERTS,
Incorporated Accountant (Eng.),
CHARLES STUART,
Chartered Accountant, Auditors.

Johannesburg, 21st May, 1912.

JOHANNESBURG CONSOLIDATED INVESTMENT CO., LIMITED.

(INCORPORATED IN THE TRANSVAAL.)

REPORT OF DIRECTORS

To be submitted to the Shareholders at a Meeting to be held in the Board Room, Johannesburg Consolidated Investment Company, Limited, Consolidated Building, Fox Street, Johannesburg, on Wednesday, the 23rd day of October, 1912, at 11.30 a.m.

ACCOUNTS.

1. The Directors submit herewith the Company's Balance Sheet and Profit and Loss Account for the year ended 30th June, 1912.

PROFITS.

2. The Accounts show that the Company's operations during the year have resulted in a net profit of £207,123 ls. 1d., which, together with the balance of £155,143 9s. 7d. brought forward from the previous year, makes an aggregate available profit of £362,266 10s. 8d.

DIVIDEND.

3. On the 18th June the Directors declared a Dividend of 5 per cent. for the Company's financial year ended 30th June last, payable to Shareholders registered at that date. This distribution absorbs £197,500, leaving £164,766 10s. 8d. to be carried forward to the next account.

During the year under review, a period of unbroken depression and stagnation has prevailed which has greatly curtailed the scope of the Company's operations and consequently affected its profits.

Upon the other hand, from a mining point of view, very substantial progress has been made. Most of the producing Mines under the Company's control show improved results, and very important and valuable work has been carried out on the Mines which are still in the development stage.

The Directors are strongly of opinion that the position and prospects of the Gold Mining Industry are eminently satisfactory, and that there is no justification for the indiscriminate pessimism with which it is regarded in European markets.

VALUATION OF SHAREHOLDINGS.

4. Although the market value of the Company's shareholdings as a whole is considerably in excess of the amount at which they appear in the Balance Sheet, the Directors have, in accordance with their usual practice, written down the book value of such of the Company's shareholdings as were in excess of the market quotations at the 30th June.

FINANCIAL POSITION.

5. Notwithstanding the unsatisfactory conditions prevailing during the year, the Company's position is a very strong and sound one.

PRODUCING MINES.

6. Details of the work done on the producing mines in which this Company is interested are periodically published, and it is therefore unnecessary to deal fully with the subject in this Report. The Directors have, however, pleasure in stating that very satisfactory progress has been made, which has been practically indicated by the increased amount which has been distributed in dividends.

GOLD PRODUCTION.

7. The aggregate value of the gold produced during the year by the Mines controlled by the Company, amounted to £2,114,000, being an increase of £89,000 as compared with last year.

MINES IN COURSE OF DEVELOPMENT IN WHICH THIS COMPANY HAS VERY IMPORTANT INTERESTS.

8. The financial arrangements to provide the necessary funds for the development and equipment of the Consolidated Langlaagte (Southern Section) and Van Ryn Deep Mines have been satisfactorily concluded, with the approval of the Shareholders of the Companies concerned. The new equipment of the Consolidated Langlaagte is now complete, and so soon as the necessary Power is available, crushing on the Southern Section of the property will commence. The Ore Reserves are now approaching 2,000,000 tons of good grade, and substantial profits are assured.

Developments on the Van Ryn Deep are also proceeding satisfactorily, and it is anticipated that crushing operations will be commenced in July next.

As regards the Government Areas on the Farm Modderfontein, record shaft-sinking progress has been made during the last twelve months, and about the middle of June (as announced at the time) the reef, carrying good values, was intersected in the North-Western Shaft at a depth of 2,393 feet. The striking of the reef in this property, both as to time and depth, coinciding as it does with the Company's Consulting Engineer's forecast, indicates the regularity of the reef position and formation on that section of the Rand.

As regards the Native Labour question, it is satisfactory to record that nearly all the important Mining Groups have entered into an agreement whereby a stop will be put to the serious competition which has existed between the private recruiting Agencies. This competition has in recent years resulted in a considerable increase in the cost of Native Labour. The arrangement now entered into will effect an appreciable reduction in working costs.

CARLTON HOTEL.

9. The improvement in the returns from the Carlton Hotel, referred to in last year's Report, is being maintained.

PROPERTY CONDITIONS.

10. There has been a steady demand for building sites for residential purposes, enabling the Company, on account of the favourable position of its properties, to effect a large number of sales.

ELECTION OF DIRECTORS.

11. In terms of the Articles of Association, four of the Directors, viz.: Sir Robert B. Llewellyn, Messrs. Charles Marx, John Munro and H. A. Rogers, retire by rotation and offer themselves for re-election.

ELECTION OF AUDITORS.

12. Messrs. J. P. O'Reilly and Henry Hains, the Auditors of the Company in Johannesburg, and Messrs. Chatteris, Nichols and Co., the Auditors in London, retire from office and offer themselves for re-election.

By Order of the Board,

W. H. MARSDALL, Secretary.

Johannesburg, 31st August, 1912.

Note.

GOVERNMENT GOLD MINING AREAS (MODDERFONTEIN CONSOLIDATED, LTD.)

Since the above Report was compiled for issue to the Shareholders the reef has been struck in the North East shaft of the Government Gold Mining Areas assaying 7.7 dwts. over 20.5 inches. In the North-West shaft cross-cutting North, the reef was intersected 21 inches wide, assaying 20.5 dwts. This information was duly published.

Johannesburg Consolidated Investment Company, Limited—continued.

Dr.**Balance Sheet, 30th June, 1912.****Cr.**

CAPITAL AND LIABILITIES.		ASSETS.	
Authorised Capital—		Investments in Stocks and Shares	
(Under resolution of 23rd		Mining Properties and Advances to Mining Com-	
November, 1905)		panies	
of which £4,345,000 is Re-		Real Estate and Buildings... ..	
gistered Capital.		Loans on Mortgage and Real Estate	
Capital Issued	£3,950,000 0 0	Loans at Short Call on Market	
Reserve Fund	250,000 0 0	Securities	£823,038 5 0
Sundry Creditors	556,820 0 1	Sundry Debtors and Dividends	
Dividend (No 15) of 5 per cent., declared June 18	197,500 0 0	Accrued	91,988 2 3
Profit Appropriation Account—		Cash at Bankers and in hand...	57,266 0 7
Balance	164,766 10 8		972,292 7 10
Contingent Liabilities—		Office Furniture, etc.	7,766 12 4
Uncalled Capital on Invest-			
ments, etc.	£112,566 0 0		
	£5,118,886 10 9		£5,118,886 10 9

W. H. MARDALL, Secretary.

S. B. JOEL, Chairman,

A. R. STEPHENSON, Directors.

We report that we have examined the above Balance Sheet, dated the 30th June, 1912, with the Books and Vouchers of the Company in Johannesburg, and have obtained all the information and explanations we have required as Auditors. In our opinion such Balance Sheet is properly drawn up so as to exhibit a true and correct view of the state of the Company's affairs according to the best of our information and the explanations given to us, and as shown by the books of the Company. We have also verified the securities in South Africa.

J. P. O'REILLY,

HENRY HAINS, Auditors.

Incorporated Accountants.

Johannesburg, 5th July, 1912.

We report to the Shareholders that we have audited the Accounts of the London Office of the Johannesburg Consolidated Investment Company, Limited, dated the 30th June, 1912, and obtained all the information and explanations we have required. The Audited Accounts of the Johannesburg Office have been properly incorporated in the above Balance Sheet and Profit and Loss Account, and in our opinion, the Balance Sheet is properly drawn up so as to exhibit a true and correct view of the state of the Company's affairs according to the best of our information and the explanations given to us and as shown by the Books of the Company. We have also verified the securities in London.

CHATTERIS, NICHOLS & CO.,

Chartered Accountants, Auditors.

London, E.C., 29th July, 1912.

Dr. Profit and Loss Account for the year ended 30th June, 1912. Cr.

To Directors' Fees, Salaries, Office and other Ex-		By Profits realised on Stocks and Shares, Dividends,	
penses, Johannesburg, London and Paris, less		Commissions and Sundry Receipts, less Amounts	
Amounts received from other Companies	£35,653 1 8	written off	£242,776 2 9
„ Balance being realised profit for the year carried			
to Appropriation Account	207,123 1 1		
	£242,776 2 9		£242,776 2 9

Dr.**Profits Appropriation Account.****Cr.**

To Dividend No. 15 of 5 per cent., declared June 18,		By Balance of Profit and Loss Account at 30th June,	
1912	£197,500 0 0	1911	£155,143 9 7
„ Balance carried to Balance Sheet	164,766 10 8	„ Do., at 30th June, 1912	207,123 1 1
	£362,266 10 8		£362,266 10 8

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	PAGE.		PAGE.
Arc Lamps	35	Lubricants	35
			3rd Cover
B		M	
Belting	x, 35	Metal Cutting and Welding, Oxy Acetylene Process	x, 13
Block and Tackle	24	Metals and Minerals Buyers and Sellers of	x, 3
Boiler Composition	35	Mills, Rotary	1
Boiler Mountings	xii.	Motor Cars, Accessories and Repairs	26, 27
Boilers, Water Tube	1st Cover.	Motor Oil	3rd Cover
Boring, Water	x.		
Breakers, Rock and Ore	1st Cover.		
Bridges	ii.		
		N	
C		Naphthalene	3rd Cover
Carbide	1st Cover.		
Cement Plants	iii.	O	
Chains	35	Oil Eliminators	36
Coal-cutters	22	Oils	3rd Cover
Company Notices and Reports	xiii, xiv, xv, xvi, 33	Oilskins	25
Compressors, Air	ii, viii, 22		
Concentrating Machinery	iii, viii.	P	
Concrete Reinforcement	1st Cover.	Packings	35
Constructional Work	ii, xii.	Paints	Back of Index.
Copper, Bronze, etc.	35	Paraffins	3rd Cover
Counters	35	Petroleum Products	3rd Cover
Crushers	in.	Pipes and Fittings	1st Cover
Cyanide Vats	ii.	Plates, Steel	xii.
Cylinders, Brass	xii.	Power Heads	xii.
		Professional Directory	iv
D		Pulleys	22
Die Heads	34	Pumps	x, 12, 15, 36
Drawing Instruments	xii.	Pumps, Boiler Feed	36
Drills, Rock	22, 2nd and 3rd Covers.	Pumps, Centrifugal	x, 15
Drill Steel	ii.	Pumps, Turbine	12
E		R	
Economisers, Fuel	viii, 1st Cover.	Recording Thermometers	35
Electrical Supplies	x, 35	Ropes, Cotton Driving	1st Cover
Engineering Works	ix.	Ropes, Wire	vi, 24
Engines, Gas	iii, vi, vii, 4th Cover.		
Engines, Oil and Petrol	vii, xii.	S	
Engines, Steam	viii.	Sale of Gold Mine	x.
Engines, Winding	viii.	Sheaves	22
		Shipping and Forwarding Agents	x, 35
F		Smelters and Refiners	35
Filters, Vacuum	x.	Stamp Mills	xiii.
Foundries	ix.	Stationers and Printers	ix.
		Steamship Company	x.
G		Steel, Drill	ii.
Gas Plants	vi, vii, xii, 4th Cover.	Steel	Back of Index.
Gauges	35	Steel, Perforated	35
Gears	35	Surveying Instruments	xii, 35
Girders	ii.		
Greases	3rd Cover.		
Guide Rods	vi.		
		T	
H		Theodolites	ii.
Headgears	ii.	Thermometers	35
Headgear Shafts	22	Threading Machinery	24
Hooks, Safety Detaching	22, 34	Tools	x.
Hose	35	Torches, Fuse Lighting	x.
		Tube Mill Liners	x.
I		Tube Mill Pegs	Back of Index.
Indicators, Engine	35	Tubes and Fittings	xii.
Iron, Angle and Bar	Back of Index.		
		V	
L		Valves and Fittings	ii, viii, xii, 2nd Cover.
Lamps, Arc	35		
Lamps, Miners'	35	W	
Lathes	36	Washers, Fastnut	26
		Water Boring	x.
		Water Softeners	36, 1st Cover.
		Welding, Oxy Acetylene	x, 13
		Woodworking Machinery	xiii.

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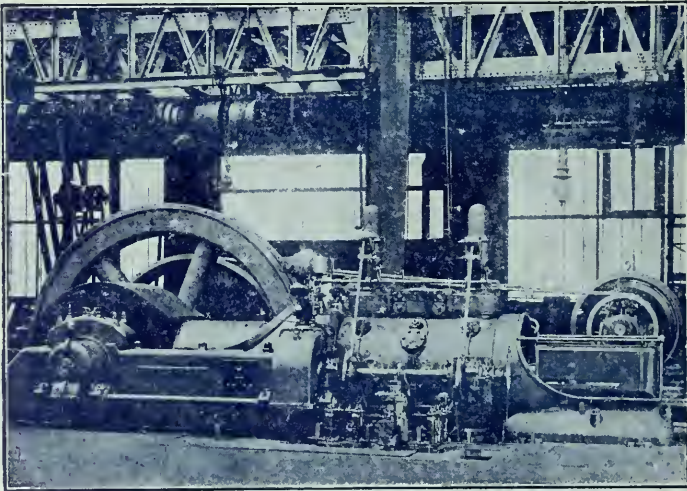
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